



117614

H. S.



Class

No.

THE EDITION

5.50

LIBRARY OF THE
COLLEGE OF PHYSICIANS
OF PHILADELPHIA

212 1
215

THE JOURNAL

OF THE

Indiana State Medical Association

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

1909

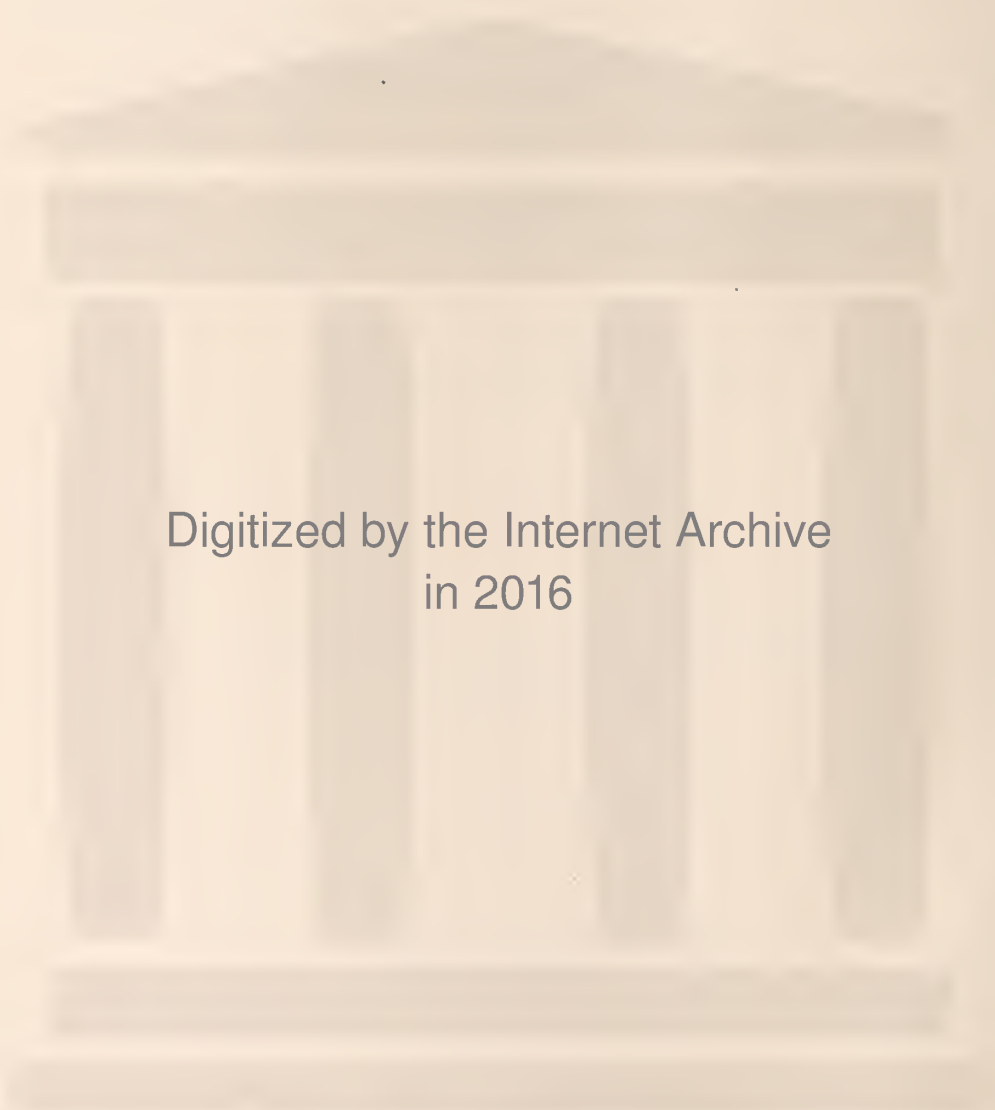
Issued Monthly
Under the Direction of the Council

ALBERT E. BULSON, JR., B.S., M.D., F.A.C.S.
Editor and Manager

OFFICE OF PUBLICATION

406 West Berry Street - - - - - Fort Wayne, Indiana

INDEX TO VOL. XVII
January to December, Inclusive, 1924



Digitized by the Internet Archive
in 2016

<https://archive.org/details/journalofindiana1719indi>

THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

ISSUED MONTHLY under Direction of the Council

ALBERT E. BULSON, Jr., B.S., M.D., Editor and Manager

OFFICE OF PUBLICATION: 406 West Berry Street, FORT WAYNE, INDIANA

VOLUME XVII

JANUARY, 1924

NUMBER 1

ORIGINAL ARTICLES

THE FUNCTION OF THE THYROID GLAND AND THE LOWERED MOR- TALITY FOLLOWING ITS SUR- GICAL TREATMENT*

CHARLES H. MAYO, M. D.

ROCHESTER, MINN.

The subject of goiter has been discussed from time immemorial in the several countries in which it has been considered as a disease. Goiter and other diseases of the thyroid, due to excess, derangements, or deficiency of secretion, as well as to infections and malignancy are of common occurrence, and I shall discuss here the prevailing opinion in America concerning these conditions.

The classification of diseases of the thyroid employed by Plummer, whose knowledge of the subject surpasses that of anyone in my experience, is the simplest possible: (1) colloid or simple goiter, (2) adenoma without hyperthyroidism, (3) adenoma with hyperthyroidism, (4) exophthalmic goiter, (5) cretinism, (6) myxedema, (7) thyroiditis, (8) malignancy, and (9) anomalies.

The first four of these groups more often concern the surgeon as they represent the enlargement of the thyroid gland. The surgeon is responsible for a few of the increasing number of cases of myxedema which have resulted from operation on simple colloid goiters, or from too extensive removal of the gland.

Colloid goiter usually responds to treatment by iodine or thyroid preparations, and only occasionally is considered a surgical disease.

Adenomatous goiter without hyperthyroidism should be treated by removal of the adenomatous masses with as little destruction of gland tissue as possible, and the remaining colloid reduced by medication.

Adenomatous goiter with hyperthyroidism is primarily surgical. Patients with adenomatous goiters of long standing often develop symptoms of hyperthyroidism which quite closely resemble those of exophthalmic goiter. This group represents those cases usually designated as pseudo Graves disease, or formes frustes, long considered an irregular or incomplete form of exophthalmic

goiter. Plummer, however, has presented sufficient evidence to prove that this symptom is a separate and distinct disease from that of exophthalmic goiter.

Exophthalmic goiter has been subject to a great deal of controversy medically. The goiter, if not operated on, causes ill health over a long period, and of itself has a considerable mortality although a number of patients with mild forms recover spontaneously. Successful reduction of the gland tissue by surgery is followed by a most spectacular and immediate disappearance of symptoms in the greater number of cases. The progress of medical knowledge concerning exophthalmic goiter has been greatly delayed by reason of the influence of certain clinicians, who, recognizing the associated involvement of the central nervous system, felt that it was a disease of that system, rather than a local condition, due to an abnormal secretion of the thyroid, and having a secondary effect on the central nervous system. Plummer's observation shows that the secretion of the thyroid gland acts similarly to a catalytic agent, accelerating the rate of formation in the cell of a quantum of potential energy. The metabolism is increased in hyperthyroid states because of an increase in the amount of the catalyst available, and inversely is decreased in myxedema because of a decrease in the amount of the catalytic agent. Kendall, by chemical methods, and Plummer, by metabolic methods which have been confirmed by Boothby, demonstrate that under normal conditions the amount of active thyroxin in the body is approximately 14 mg. Kendall has succeeded in separating and analyzing the active principle of the secretion of the thyroid gland, which he designates "thyroxin." He has also determined the empirical and structural formulas of thyroxin. Various compounds closely related to thyroxin have been formed synthetically, but not yet studied physiologically. As pointed out by Plummer, it is not unlikely that in exophthalmic goiter the characteristic symptoms peculiar to that disease, which are absent in adenomatous goiter with hyperthyroidism, are due to an imperfect form of the thyroxin molecule; his investigations suggest that in some way this variation may be due to an insufficient number of iodine atoms on the thyroxin nucleus. Kendall has further pointed

*Read before the Indiana State Medical Association, Terre Haute, September, 1923.

MAY 26 1925

117614

out that the chemical properties of thyroxin and its probable antecedents are in accord with the theories of Plummer, based on clinical physiologic studies. It is possible that in exophthalmic goiter, characterized pathologically by diffuse parenchymatous hypertrophy, the gland is driven so hard by some unknown stimulus that the resulting secretion is more toxic than the normal secretion, or by its peculiar affinity for certain tissues produces the characteristic symptoms that differentiate the typical case of exophthalmic goiter from adenomatous goiter with hyperthyroidism. In short, adenomatous goiter with hyperthyroidism is pure hyperthyroidism, and exophthalmic goiter is hyperthyroidism plus dysthyroidism. Probably the greatest contribution to the safety of operation in exophthalmic goiter was made by Plummer in showing that the opinion commonly held formerly, that iodine should not be given to patients with true exophthalmic goiter, is incorrect. He shows that, when iodine is given in excess, those symptoms peculiar to and characteristic of the exophthalmic goiter as contrasted with those of adenomatous goiter with hyperthyroidism largely disappear. This observation, if appreciated by the surgeon, will immediately reduce his mortality rate by improving the resistance of those patients whose condition was formerly considered so dangerous, and render them less susceptible to operative procedures. Cases of true exophthalmic goiter, and of the hyperthyroidism of adenoma are to be recognized by increased metabolism, and thus operation is avoided on patients with no increased metabolic rate, who have other forms of nervous trouble, such as dementia praecox psychoneurosis, and cardiac neurosis. The loss of much thyroid through unnecessary operation will, in the end, be harmful to such patients, even though the immediate mental condition may be somewhat improved as a result of the psychic stimulus derived from a surgical procedure reinforced by the enthusiasm of a brilliant surgeon.

Thyroiditis, due to infections of the gland, is of relatively rare occurrence; the constitutional symptoms produced are difficult to distinguish from those of exophthalmic goiter and malignancy.

Cancer of the thyroid is not so rapidly fatal as one would expect, considering the active circulation of the gland. A surgeon need not go to the extreme surgically in removing every vestige of it, and in some cases in which surgery is not advisable radium emanation tubes buried in such growths have reduced the size of the gland marvelously, and thus relieved pressure. Treatment with radium and x-ray has often checked the disease, or apparently caused it to disappear for long periods.

The diseases of the thyroid, such as exophthalmic goiter, and adenomatous goiter with hyperthyroidism have lost their former place among serious and fatal surgical ailments except in advanced cases. The present great re-

duction in surgical mortality demonstrates the benefit of medical and surgical teamwork in the diagnosis and classification of thyroid diseases. Medical treatment is curative or beneficial in certain forms of goiter. In types of the disease formerly so fatal, if untreated, and also in which there was a high mortality surgically, improvement may be obtained by proper care. The actual dangers from avoidable surgical accidents and complications are now better recognized. This is all the result of the greater attention given to disease of the thyroid, both medically and surgically. Any discussion or argument, any fad, medical or surgical, which will lead to more and better care of the patient, will lower mortality as a by-product, so to speak, and therefore is justified by the result. Ligation is chosen for the more serious type of exophthalmic goiter, but is of no benefit in cases of adenomatous goiter with hyperthyroidism. It is usually made on one side at a time under local anesthesia, and serves the practical purpose of indicating the resistance of the patient to operation, on which will depend whether a second ligation or a thyroidectomy will soon be made.

Operation and Treatment: In our clinic we prefer the transverse incision in the line of the natural crease, the anterior muscles of the neck to be freely divided at a high point in the incision, if necessary for the better exposure of the gland. In most cases the muscles will stretch sufficiently without division. We avoid working so close to the trachea that the rings are exposed, yet we divide the isthmus and remove the pyramidal lobe, when present, and make a double resection, removing the anterior portion of the lateral lobes. The posterior layer of the gland and capsule is left uninjured to protect the parathyroids and the circulation, as well as the recurrent laryngeal nerves. True intrathoracic or substernal tumors of the thyroid are usually encapsulated and can be enucleated from within the capsule. Veins should be divided between forceps, or at least divided above the lower forcep to prevent the possible complication of air embolism. Plunging one blade of a forceps into the gland, and clamping the external blade on the capsule of the gland is often of immediate advantage, permitting rapid dissection of large goiters.

Temporary drainage is advisable in most cases. Most operations on the thyroid can be performed under local anesthesia (procain), morphia first having been given to allay apprehension. Occasionally the surgeon deems it advisable also to use a slight amount of ether or gas oxygen.

Control of hemorrhage is made with forceps, and assistants must be carefully instructed to apply and close the forceps in line with the nerves or trachea, and never across the neck. This avoids crushing injury to the laryngeal nerve which is the most common form of temporary injury. The gland should always be sutured in line with the

nerve and never across it, in order to avoid accidental inclusion of the nerve with the suture. If the rings of the trachea are softened and lead to attacks of dyspnea after the removal of large goiters, external stay sutures may be required to maintain the patency of the trachea for the first forty-eight hours; fine catgut sutures are sufficient. Injury to the trachea, or to the laryngeal nerves doubles the risk of lung complications. If such injury has occurred and there is dyspnea and even slight anoxemia, tracheotomy should be performed at once; if made later the benefit is greatly reduced or wholly lost. The experiments of Professor Asher on animals have confirmed our observations that anoxemia is more dangerous and can be safely withstood for a much shorter time by persons with hyperthyroidism than by normal persons.

Examination of the larynx should be made in all cases of goiter before operation in order to learn the condition of the vocal cords, as one or both may have an injured abductor or adductor, more commonly on the left side from pressure on the nerves by adenomatous masses. Examination should be made again before the patient leaves the hospital to insure the competency of these cords. Pulmonary embolism is rare. At the Mayo Clinic from 1912 to 1922 inclusive, there were 20,961 resections of the thyroid, and five deaths from pulmonary embolism, or one in 4,484 cases. During the same period there were 6,493 ligations of thyroid arteries with one death from pulmonary embolism.

Throughout the past year, 1922, there were 1983 operations performed on the thyroid gland with but nineteen surgical deaths, a mortality rate of 0.96 per cent. In this number are included 663 thyroidectomies performed on 663 patients with adenomatous goiter without hyperthyroidism, with but one death, a mortality rate by case of 0.15 per cent. The highest death rate was in cases of adenomatous goiter with hyperthyroidism, there being seven deaths following 201 thyroidectomies on an equal number of patients, or a mortality rate by case of 3.48 per cent. In these cases the myocardial degeneration is greater, and as much or more than the average in exophthalmic goiter. There were 1,093 operations in 1922 for exophthalmic goiter with a mortality rate, by operation, of 1 per cent. The operative mortality by case, however, is the significant figure in exophthalmic goiter, and in our series for 1922 was less than 2 per cent (1.99) and the mortality rate for thyroidectomy in exophthalmic goiter was less than 1 per cent. (0.96).

THE PHYSICAL EXAMINATION OF INFANTS AND CHILDREN*

JOHN LOVETT MORSE, A. M., M. D.
BOSTON

It is almost impossible to over-emphasize the importance of the physical examination of infants and children, not only as an aid to diagnosis, but also in the determination of their development and nutrition. A careful and complete physical examination is of even greater value in diagnosis in early than in adult life, because the baby and young child can tell little or nothing as to their subjective symptoms. In fact, except in the diseases of the digestive tract, the diagnosis must depend very largely on the findings of the physical examination. Nevertheless, many physicians apparently fail to appreciate how much can be learned from a thorough physical examination and consequently slight or neglect it. There are several reasons for the present tendency to neglect physical examination. One is that many physicians have never learned how to examine a baby or young child properly and, therefore, are unable to get much help from their examinations. Unfortunately, many of this class are not aware of their ignorance. Another reason is that physicians are in too much of a hurry to take the time to make a careful examination, even if they are competent to do it. They think that they are too busy or that they can "get by" without it. No physician should allow himself to be so busy that he cannot do good work and the man who tries to "get by" in medicine by slighting his work has mistaken his calling. The chief reason, however, especially among the younger men, is the tendency, which is unfortunately on the increase, at our medical schools, to neglect the teaching of physical examination and to lay undue emphasis on the importance of laboratory procedures. The students are not taught to use and to trust their unaided eyes, ears, hands and brains, but are taught to rely on the findings of the laboratory. Without these many of them are helpless. Men who have learned to make careful examinations and to interpret rationally their findings, however, know that it is not often necessary to call upon the laboratory for assistance. When they do need to call, such men know what they want to know and why they want to know it. It is to be hoped that in the not too distant future the instruction in our medical schools will become more rational than it is at present.

It is necessary not only to know how to make careful physical examinations, but also to know how to interpret properly the findings of these examinations. It is very easy to misinterpret them unless the normal development and the normal physical signs at different ages are known. These vary from month to month and from year to year as the individual grows older and must

*Presented before the Section on Medicine of the Indiana State Medical Association at the Terre Haute Session, September, 1923.

be learned. What is normal at one age is abnormal at another. Unless due attention is paid to these differences erroneous conclusions are almost certain to be drawn and mistakes in diagnosis to be made.

It is impossible to make a proper physical examination of a baby or child unless it is stripped. It is not enough to loosen or pull up the clothes. Everything must be taken off, including the shoes and stockings, as not infrequently something will be found in some unexpected locality which will throw light on the diagnosis. Fortunately, questions of modesty do not interfere at this age with proper and thorough examinations. If a proper and thorough examination is refused, the patient should be asked to seek advice elsewhere. One of the things that I was taught by Dr. Gannett in Boston when I was a student was that I should always give myself the best chance in the examination. Do not be satisfied with partially undressing a patient for examination. Give yourselves a chance—it is hard enough anyway.

Nutrition and Development. The first thing to be noticed is the general nutrition and development. This is best estimated in infants by the condition of the skin and by the amount of fat tissue; in children by the amount of fat tissue and of muscles. Every physician, of course, now weighs and measures his patients. Even if he did not in the past, he does it now because it is done in the schools, health centers and baby clinics, and he is therefore forced to do it. Everyone is familiar with the tables of weights and heights. They have served a very useful purpose, in that they have made people think about their children in a way which they never did in the past. They also have done physicians a great deal of good, especially the pediatricians, because people, more or less incompetent, weigh and measure children at school and in various clinics, tell the parents that they are underweight or under-height and frighten them so that they come to the physician for advice. These tables also have done much harm, in that they have frightened many parents unnecessarily. There is no such thing as a normal weight and height for infants and children. All these tables are simply averages. No one should be expected to be exactly the average. Why, therefore, should anyone agree with these tables? Nobody expects all the people in a block to have the same colored hair and eyes and to be of the same size. Why should anyone expect the children to be all alike? No one expects a Shetland pony and a Percheron horse to be of the same size, and yet they are both normal. The individual child and its parentage must be considered in estimating whether the child is as heavy or as tall as it should be. Incidentally, the child's color should be noticed, not only that of the skin, but also that of the lips and nails. It is possible to tell closely enough for ordinary work from the color of the child's lips and nails whether or not

it is anemic. It is impossible to tell from the skin. Many children with pale skins have plenty of red cells and hemoglobin. While noticing the general nutrition it is important to notice how the child stands and to find out about its posture. If that is done, many patients will be kept away from the chiropractors and osteopaths.

All through the examination the physician should notice whether the child is obedient or not, whether it is nervous, whether it is well controlled and whether it is intelligent. It is hardly possible to examine a child properly without, incidentally, finding out whether it is feeble-minded or not. A physician who is in the habit of examining and observing children carefully will never be more than one or two years out in his estimation of the mental capacity, as determined by the various mental tests.

The attitude of the parents is just as important as that of the child; whether they expect obedience, whether they are unstable and nervous. Many times the trouble is not with the child but with the parents and it is necessary to work with the parents instead of with the child.

In examining children a certain number of points should be noted in every case; certain things about the head, about the abdomen, about the extremities and so on. Every one of them must be noted every time. It does not make any difference whether the examiner starts at the head, the feet or in the middle and works both ways, provided he does not miss any of these points. I used to have a stenographer who, if I missed a single point in the examination, would ask me why I did not mention it, showing that I had a very definite routine.

Head. Let us begin at the head. I could talk for half a day, because there are so many little points to take up and so many things suggested by them, but, as I have only a short hour, I will take up but a few of them. First notice the shape of the head and its size, remembering that the head of the infant and young child is normally large, the head being larger than the chest up to three years. If the patient is a baby, notice the fontanelles, whether they are closed or not, and, if not, the level. It is necessary, of course, to know when they should close. If the patient is a baby, place the heels of your hands on the forehead and press with the ends of the fingers over the occiput and parietal regions to determine whether there is or is not craniotabes. Do not poke the head with the fingers, as I have seen many students do. Notice, incidentally, the amount of hair and whether it is fine or coarse.

Remember that in the baby and young child the face is small and the cranium big, because of the lack of development of the jaws. Consequently, the face appears wide. Remember that the nose of a baby is small and without much bridge. Don't forget to notice whether there is or is not a nasal discharge. Remember that a thin, watery

discharge, perhaps with a little blood, often means nasal diphtheria, while a purulent discharge often means syphilis. Notice the lips, whether they are cracked or fissured. Notice the mouth, whether it is kept open and how widely, then the teeth. It is not enough to notice the number. The condition must also be noted. Note whether they are decayed, whether they are properly taken care of, and especially the shape of the jaw and of the hard palate. Remember that Hutchinson teeth are found only in the second set, not in the first.

Throat. It is better to put off the examination of the throat until the last thing, because many children are frightened by it. It is perfectly possible, however, to examine a child's throat in such a way that the child will not lay it up against you. I always tell a child, when I have to look at its throat, that it will be uncomfortable and that I am sorry to do it, but that it must be done. The child should be held in somebody's lap, facing the light, and with the back resting against the chest of the person holding it. Never have it held sideways or lying down unless it is too sick to sit up. Always have it sitting upright. If the child will not open its mouth, pinch its nose. Usually, however, it will open its mouth if it sees that you mean business. It is impossible to examine the throat properly unless the back of the tongue is pushed down until the child gags. The best tongue depressor that I know of is the old-fashioned teaspoon. I say "old-fashioned" because teaspoons used to be rounded at the ends and were not sharp, as they are now-a-days. Do not be satisfied with merely looking at the throat, if there is anything about the history that suggests trouble in it. It is perfectly possible for a child to have a retropharyngeal abscess that cannot be seen. Always put in the finger and feel down the throat, so that nothing will be overlooked.

The chief thing to be remembered about the nasopharynx is that, throughout infancy and early childhood, it is shallow and deep anteroposteriorly. It is, therefore, much easier to feel adenoids at this time than in older children. In examining for adenoids I have the child sit sideways on somebody's lap, with the back towards me. I then put a gag in the left side of the mouth and feel with my right forefinger. If the child is told what you are going to do, that it will be uncomfortable and probably hurt a little, but that you will be as quick about it as possible, it seldom objects and never treasures it up against you. It is necessary to examine for adenoids in this way, because it is very seldom that anything can be seen in a child with a mirror, and it is impossible to see anything through the nose.

Ears. The only way in which anything can be told about the ears is by looking at the drums with a speculum. It is impossible to tell anything as to whether there is trouble in the ear by whether the child puts its hands to its ear, pulls its hair or complains or does not complain of

tenderness over the mastoid. I have had a child of six years tell me that it had a pain in its knee when it really had an abscess in its ear. No physician is doing his duty to his patients who does not train himself to look at the ears and then make use of his training. Either the old-fashioned speculum or one of the new electric speculums can be used. The new ones are more convenient, but they do not give the normal colors. It is just as necessary for a physician to carry his ear instruments as a stethoscope.

Eyes. As to the eyes, I am sure that there is not a man in the room who has not, at some time, overlooked crossed eyes, until the parents told him about them. It is also a good thing to remember, when a sick child has strabismus, to ask whether it had it before it was sick. Many awkward mistakes will be avoided in this way. A baby cannot co-ordinate its eyes until it is three months old. It does not shed tears until it is at least three months old. The reflex to light is present at birth.

Spine. As regards the spine; the most prominent spinous process in the neck is the first dorsal, not the seventh cervical. The position of the fourth lumbar spine is the same at all ages, that is, at the level of the crests of the ilia. It serves as the guide to lumbar puncture.

Chest. In the baby the chest is wider and shorter than later. The anteroposterior diameter is larger in proportion to the lateral diameter. The ribs are more horizontal and do not bend as much backward. The baby has the same shaped chest as the emphysematous adult. If these points are not remembered, erroneous conclusions may be drawn. The shape of the chest gradually changes and reaches the adult form at about five years.

The rosary is not a rosy flush on the skin, as I was once told by a medical student who eventually settled in Indianapolis. It is a beading at the junction of the ribs and cartilages. The ribs are shorter and the cartilages are longer in the baby than later. The rosary is often overlooked therefore, because it is not sought for in the right place.

It is very important to have the child in the proper position for the examination of the chest. The best position for the examination of the front of the chest is with the baby lying on its mother's lap or on a bed. The child may be flat on its back or sitting up. It is extremely important to have the back flat, so that both sides are alike, because the chest wall is so collapsible in babies and young children that the signs are materially different on the two sides, simply as the result of the pressure on the down side. Dullness and diminished respiration are often present on the side on which the patient is lying. The best position for the examination of a baby's back is to have it held by the mother or nurse in the position in which it would be held if they were walking the floor with

it. If a child is not too sick, its back may be examined when it is sitting up. If necessary, it may be turned on its face, but, even in the child, the pressure of the body on the flexible chest may change the signs.

Everyone, of course, now-a-days uses a stethoscope instead of the naked ears. It is especially important to use a stethoscope in babies and children, because of the small size of the parts. For the same reason it is very important to use a stethoscope with a small bell, rather than a large one. The bell of the ordinary Bowles' stethoscope will cover the whole of an infant's heart and almost the whole of the lobe of a lung. Unless a small bell is used it is impossible to properly localize sounds.

Heart. Now a word as to the heart. The heart is not only relatively large in infancy and early childhood, but is placed in this peculiarly shaped chest, so that in infancy and childhood, especially in infancy, the cardiac impulse is higher and farther out than in older children and adults. It usually gets into the nipple line at about seven years, and is always inside it at thirteen years. I believe that the cardiac area can be percussed out at any age, if sufficient care is exercised. It is necessary to remember the areas at different ages. In the baby the cardiac dullness extends about two centimeters to the right, and six centimeters to the left of the median line. The area gradually increases, so that at 12 years it extends three centimeters to the right and eight centimeters to the left. Unless the normal area for a given age is known it is impossible to know whether the heart is enlarged or not. Many physicians forget how rapid the rate of the baby's and young child's heart is. It varies between 120 and 140 during the early weeks; between 100 and 110 during the second year, and doesn't get down to 80 until the child is over five years old. A pulse of 120 in a baby is, therefore, normal. If it goes up to 180, it doesn't mean any more than when it rises to 120 in an adult. A baby with pneumonia would have a pulse of from 160 to 180. Nevertheless, many physicians are greatly worried because the pulse runs as high as this. Everyone knows how easily the rhythm varies in infancy and childhood, but I think that it is often forgotten. It is worth remembering that the pulse rate varies normally with the respiration in many children. This normal respiratory arrhythmia often disturbs physicians unnecessarily. I have not time to consider the heart murmurs in children which are organic. The chances are that if a murmur is in a baby or young child, it is extra-cardiac or functional, not organic. Even when the child is older, the chances are that a murmur is not organic.

Lungs. There is one thing about the lungs of which I wish to speak, that is the relation of the lobes of the lungs. I suppose that all doctors at some time have known that the relations of the lobes of the lungs are the same in children

as in adults, but I meet a considerable number who, after they have been out of the medical school some years, seem to think that the arrangement of the lobes is similar to that of the layers of jelly cake or Washington pie. The line dividing the upper and lower lobe begins, roughly, behind, on a level with the spine of the scapula, runs through the axilla at about the level of the fourth rib, and ends near the sternum at the level of the fifth cartilage. On the right side the line between the middle and upper lobes leaves the other line where it crosses the scapula, passes through the axilla at about the level of the third rib, and ends at the sternal border at the level of the fourth cartilage. That is, on the left side, very little behind is upper lobe, and almost all lower lobe, while in front almost all is upper lobe. On the right side, behind, the relations are the same as on the left. The upper axilla is middle lobe and the lower, lower lobe. The greater part of the upper part of the right front is upper lobe, the middle is middle lobe, and a small area low down is lower lobe.

Percussion. It is necessary, to get good results, to percuss the chest of babies and children lightly. By light percussion I mean, percussion so light that it cannot be heard more than a few feet away. Light percussion is absolutely necessary, because the parts are so small that hard percussion brings out the sound from too large an area or from too many organs, and renders accurate observations impossible. Hard percussion over the left lung almost always brings out a tympanic note from the abdomen, not only in front but in the back. Hard percussion, even on the right side, will sometimes bring out a tympanic note from the abdomen. I have seen not a few cases, in which the diagnosis of pneumothorax was made, which were due to hard percussion, the "pneumothorax" being in the abdomen. A sign which has helped me a good deal is what I call the "sense of resistance." When a normal chest is struck with the ends of the fingers, there is a certain feeling of elasticity. When the stroke is made over a solid lung, there is a definite feeling of resistance; when it is made on the thigh or over the liver, there is a very marked sense of resistance. The same marked sense of resistance is felt when the stroke is made over fluid. This marked sense of resistance is, next to the displacement of organs, it seems to me, the most important point in determining between solid lung and fluid.

Respiration. Now a word about the respiration. There is not the same difference between the length of inspiration and expiration in babies and young children that there is in adults. Furthermore, the normal respiratory sound is bronchovesicular, nearer, of course, to the vesicular than to the bronchial end. That is, the respiration is what is known as puerile. I find, over and over again, physicians mistaking this normal puerile respiration for bronchial, simply because it is

loud. They fail to distinguish between the quality and intensity of the respiratory sound. Consequently they often make the diagnosis of pneumonia on the wrong side, mistaking the loud puerile respiration on the good side for bronchial, and overlooking the bronchial character of the diminished respiration on the diseased side. I also have had men tell me that they heard bronchial respiration over both sides of the chest, back and front, forgetting that bronchial respiration means solidification of the lungs. A child could certainly not have two solid lungs and still be breathing. Whenever there is any question as to whether the sound which is heard is bronchial or not, it can always be settled by listening over the trachea in front or over the spine in the upper back, where the pure bronchial sound can always be heard.

Abdomen. Remember that the shape of the abdomen in infancy and early childhood is like that of an egg with the small end down. The pelvis is small and remains so until almost puberty, before which time there is little or no waist. I frequently see mistakes in diagnosis in infancy when the abdomen is distended. The diagnosis of tubercular peritonitis is often made when the whole trouble is due simply to chronic enlargement of both large and small intestines as the result of indigestion. In such cases, if the feces are liquid, there may even be dullness in the flanks, and sometimes shifting dullness.

Do not forget that babies may have trouble with the anus and in the rectum. Dr. F. C. Shattuck once said that, "The first duty of a consultant is to make a rectal examination." It certainly is not infrequently the first duty of the pediatrician.

The liver of babies and children is large. It may, under normal conditions, extend even three or four centimeters below the costal border as late as four or five years.

There is nothing peculiar about the examination of the spleen in early life, but it should always be felt for. It is frequently enlarged in infancy and early childhood, without the enlargement being of any great significance. Remember that the spleen becomes quickly and markedly enlarged from relatively slight causes in early life, and that enlargement, therefore, does not necessarily mean any serious condition.

Always feel in the flanks to determine whether there is any tenderness over the kidneys or whether they can be felt. Sarcoma of the kidney is almost always missed in its early stages because the examining physician does not feel in the flanks.

Do not forget the groins. Think of the things that may be there: hernias, partially descended testicles, hydroceles, all of them bad to overlook. Again, do not forget the external genitalia, they should be looked at as part of the general physical examination. And—do not circumcise every poor

little baby that has a foreskin, because you need the money.

Extremities. Always examine the extremities. It is very bad to miss a congenital dislocation of the hips and have the next man find it, when the simple stretching out of the legs would have shown the deformity. By running the hand over the long bones, it takes but an instant to find out if there is any evidence of syphilis or rickets. It is sometimes difficult to tell whether there is any spasm of the extremities or not, if a child is unconscious. It is not as difficult, however, to tell whether there is paralysis or not, because the extremities drop in a characteristic way, different from the normal, even when the child is unconscious. When babies and little children are conscious it is perfectly useless to try to determine whether there is paralysis or not by telling them to use their arms and legs in a certain way, or to put them in certain positions. They can be made to do these things, or attempt to do them, by offering them a toy or by pricking their fingers or toes.

Nervous System. I do not want to go into the examination of the nervous system in detail. It is usually easy to determine the condition of the cranial nerves simply by watching a child and by playing with it. If the patient is a boy ask him to whistle. If he will not do that, almost every little child will try to blow out a match. If a child is asked to wrinkle its forehead it usually refuses, but if it is asked to make a face it will do it with pleasure. In such simple ways the condition of the muscles can be made out.

The best way to get the knee-jerks is when the patient is lying on the back. I put one hand under the thigh, lift it a little, and then percuss. It is often possible to elicit the jerk by moving the leg up and down when it cannot be obtained with the leg in one position. It cannot be obtained, of course, unless the patient is relaxed, and on this account a great deal of time and patience is often required. The abdominal and cremasteric reflexes are not of as much value in infants and young children as later. They are likely to be very lively in babies, and not so lively in young children. The possibility of spasmodophilia must always be borne in mind in babies, and the facial phenomenon and Trousseau's sign tried for, if there is any suspicion of it.

Lymph Nodes. Next, the lymph nodes: the point to be remembered here is that a general enlargement of the peripheral lymph nodes in early life does not necessarily mean that there is tuberculosis or syphilis. In fact, as a rule, it doesn't, but signifies simply a general disturbance of nutrition. The methods for determining whether the tracheobronchial lymph nodes are enlarged are not very difficult, but too complicated to be taken up now.

Skin. Finally the condition of the skin must

be noticed, especially as to whether there is an eruption or not. It is unfortunate to examine a child with its clothes on and then have the mother or another doctor find a rash that was overlooked. It must also be remembered that it is often impossible to recognize a rash by artificial light.

Summary. Finally, I cannot emphasize too much the necessity of a complete and thorough examination of every child, and the importance of stripping the child so that nothing will be missed. It may seem a long process, but anyone who has trained himself to examine infants and children, and has used a definite routine, can examine a child or baby thoroughly in 10 minutes or less, unless something unusual or peculiar is found. If there is some complicated condition, it will take longer, but the routine examination, taking in everything of which I have spoken and a great deal more, will not take over ten minutes.

DISCUSSION

DR. ADA SCHWEITZER (Indianapolis): We have been feeling our way in Indiana in making medical examinations of children in the Child Hygiene Division of the State Board of Health, and we are sure that the examinations have been beneficial to a large number of children, as in many instances we have found things which the local doctor never had an opportunity to find because the child was never taken to him. Since the child health conferences have been advertised in advance, children have been brought in to them just to see if they are in good health. This has given us an opportunity in many instances of sending the child back for more complete examination and treatment by the family physician. This year we have devised the plan of having the mother report to us the improvement in the child. We have not had many reports, but invariably when we do have one the report states that the child has improved because the mother has carried out some suggestion made by the doctor in charge. We have carried out in a general way the examination outlined by Dr. Morse, except for one or two details.

We have found many deformities of the mouth, and the mothers have been instructed that the children should be looked after when these deformities are sufficiently marked. We have found children with defective teeth, many times defects of the teeth because of some hereditary condition or improper nutrition. We believe that the early feeding of the baby is the keynote to his health later on, and in every case we have taken the history of the early feeding, the condition of the mother during pregnancy and her care during the confinement. Under-weight children, ages three to six, are more frequent among those who were artificially fed than among the breast-fed, and we have found in addition that the children fed on cow's milk do not have the under-weight condition later on in as large a percentage of cases as do those fed on artificial commercial food.

We base our general study of the child on the condition of the skin, the muscle turgor, his reaction to various stimuli and on relation of height to weight. This is not taken as a criterion itself but the condition of the whole child is studied to see whether he should be classed as under-weight. We consider the child's parentage and make allowance for the different types of parents—whether the parents are tall and slender or short and thick—and try to judge the child from all obtainable data.

We observe the child so far as conduct is concerned from the beginning to the end of the examination. Some children have been accustomed to getting what they want by screaming and crying. Some others pass through the examination without disturbance of any kind. They have been trained to adapt themselves to whatever may come. In other cases the poise of the child has gradually become a habit, the formation of which has been due to both the encouragement and manner of the parent. These children are reasonable and happy throughout the examination. When children give way to fright or anger we try to suggest to the parent that this will be a disadvantage later on. Advice is based on the child's future rather than his present conduct, and I believe we have helped the parents in many instances—as many probably as we have been able to help in a physical way.

We have had splendid co-operation from the medical men in the state, and it is a matter that is our mutual concern. Parents do not as a rule have their children examined frequently enough and if we can in some way make them feel that the child's health should be examined into at frequent intervals we can help. If we are in a community where there are poor children the suggestion is made that group examinations be carried out and that the local doctors make them. We are trying to encourage the group examinations by sending to communities a doctor and a nurse or two whose duty it is, with the help of the local men and local groups of women who sponsor this work, to make such examinations. We hope that by taking the children to the physician or by having group examination made we can see that every child in Indiana has the best care possible.

DR. ALBERT E. STERNE (Indianapolis): The relation of height and weight is not altogether dependent upon the question of food in childhood, in infancy, or later in life. We are a long ways from a realization and understanding of the true inwardness of the function of the so-called ductless glands of the body. We know a few things, more or less isolated facts, about the functions of the various glands, of their correlation and their interrelation we have only the lightest inkling. In a general sort of way we can divide children into two types—the hypo- and hyper-pituitary types. In the hypo-pituitary type we are apt to see the pudgy face, the delight of the parents in the dimpled darling, but by no means

the healthy baby. The long, slender type, the hyper-pituitary, with irregularity of feature, is apt to have teeth widely spaced; whereas in the hypo-pituitary type the teeth are apt to be regular and the features regular. It is the hypo-pituitary type which makes people resemble each other, whereas there is marked dissimilarity in the hyper-type. This is just a very light touch upon the great big subject of body chemistry dominating the form and structure which we are so apt to consider abnormal.

One other point. For many years I have noticed symptoms which make me feel that many infants suffer injury at birth—slight injuries usually, to the brain and to the cord in supposedly perfectly normal births—slight petechial hemorrhages, or slight laceration of brain tissues, from which later on—perhaps after many years—proliferations begin to evolve and finally we have an organic disease, chiefly of the brain and less frequently of the cord. I have never seen this assertion in print, but I do not hesitate to make it here because I am fully convinced that in births that are said to be perfectly normal many children have the first lesions set, which later on develop into serious affections. Furthermore, and notably, in these children who may have had perfectly normal births, it is the most difficult thing to make parents understand their own children—they are prone to think their child exceptional, with different characteristics than other children. You cannot make parents see the shortcomings of their own children, and the marks of “genius” bring joy to them where later on these marks point to the almost certain doom of that child by way of dementia præcox. To be sure, and very fortunately, this is not always the case, but it occurs quite frequently and is, I believe, worthy of comment.

DR. JOHN LOVETT MORSE (closing): I am much interested in Dr. Schweitzer's findings in regard to the older children being better nourished when breast-fed than when bottle-fed, because I have always contended that the breast-fed baby made a better child and a better adult than the bottle-fed.

About the examination of children by people who are able to pay for them, I always approach them in this way: I tell them that they have their automobiles overhauled at least once a year and that they should do as much for the children.

I think Dr. Sterne is right in believing that many slight injuries happen to children at birth, which are unsuspected. Dr. Crothers has been talking a lot about it in Boston recently, but I do not know whether he has written about it. There is no question but that many children not only make a great mistake in choosing their parents, but also in their choice of an obstetrician.

EPIDEMIC ENCEPHALITIS— AFTER EFFECTS*

W. A. FANKBONER
MARION

At the 1921 session of the Indiana State Medical Association I presented a paper on epidemic encephalitis, treating the subject in a general way. At the 1922 session a paper on the after effects was prepared but not read on account of the program being overfull. The committee which arranged our present program requested me to present such data at this meeting. During the past year I have been able to check up on fifteen cases by observation and information, and have reviewed the reports on 395 cases in current medical literature.

The terminal condition varies through a wide range of phenomena, from complete recovery to a mortality of 20 per cent. One-third of the survivors may recover in from six to twenty-four months. The other two-thirds will show some distressingly annoying symptoms or actual organic abnormalities. These phenomena will vary from a slight tic to a complete paralysis, from mental hebetude to insanity. In children there may occur a dwarfing of development, both physical and mental. Fifty per cent of the survivors will likely show a condition simulating paralysis agitans.

There is no symptom in this disease but that may appear in many other diseases of the nervous system. It is the symptom-complex and developmental characteristics that give the disease its entity. It is a systemic infection having its primary focus in the upper air passages, and in a majority of cases its most manifest pathology in the brain stem.

Very few of us in the every day practice of medicine take up abstractly the study of any particular line of work or type of cases; and so, in this instance, my interest in this disease was stimulated primarily by the first two cases mentioned, and my contact with the disease has been that of the general practitioner.

Case 1 came to my office in January, 1921, with the initial symptoms of fatigue and diplopia. In a few days he took to his bed, developed drowsiness, lethargy, expressionless face, general spasticity, coarse tremors, increased heart rate and an increased respiratory rate which was noisy on account of spastic closure of the mouth. He seemed entirely oblivious of his environment, was aroused only by sharp insistent urging, opened the eyes slightly and immediately lapsed into lethargy. His motor symptoms ran the whole gamut of the cranial nerve distribution and into the long tracts of the arms and legs. His mental symptoms were only a slight delirium during the second and third weeks.

No function was completely paralyzed. General

*Presented before the Section on Medicine of the Indiana State Medical Association at the Terre Haute Session, September, 1923.

spasticity was a persistent feature. The legs were in a constantly semiflexed position. The arms were kept in a repose position across the chest in a spastic state, with wrists and fingers slightly flexed. If an arm were lifted away from the chest by the attendant it retained the flexed position and would remain away from the body until replaced by the attendant. Any motion that might be attempted by the patient was attended by a marked aggravation of a coarse tremor.

He was in bed two months, took no solid food for seven weeks, could not masticate, and swallowed liquids with great difficulty; for six weeks could not articulate, and most of the time made no sound whatever; for ten weeks could not change the position of his body. Twelve weeks from the beginning of his illness he could walk, showing some spasticity but no ataxia. Six weeks later he could do light work, gradually doing more, and has worked continuously since. For many months he experienced inordinate fatigue and was deficient in initiative and power of concentration. The only thing left at this time (33 months after the beginning of his illness), is an infrequent tic at one corner of the mouth, and he tells me he is doing his work as satisfactorily as before his illness.

Case II had encephalitis in December, 1919. Lethargic five weeks but worked during this time. Insomnia later developed and on account of lack of endurance and loss of power of concentration he had to quit work. He tried work several times but failed. At one job his duty was to take a miscellaneous lot of small machine parts and put them in boxes, each kind in a separate box. He would get them mixed and was conscious of doing so. His insomnia has been continuous to the present time. Three hours is a long sleep for him, but he lies quietly in bed without pain or distress of any kind. He cannot sleep in daytime. He has the slightly stooped attitude, the akimbo elbows, and the shuffling gait of paralysis agitans. This symptom-complex is more marked in recent weeks. All reactions, both physical and mental, are slow. He is intelligent and mentally clear. In the last three months he is developing some difficulty in swallowing and is having excessive saliva. His general appearance is one of dejection.

Case III had a mild persistent ptosis, with weakness and lethargy and no other manifestations, was easily aroused, immediately lapsed into lethargy, and was in this condition for one month, day and night. There was an uneventful complete recovery in six weeks.

Cases IV and V were seen in consultation with Dr. Hawkins, Swazee, Ind. One of these, a man of 50, showed an early paralysis agitans condition of an intensely marked type, with nothing in the history to suggest its occurrence. He died early in the illness.

The other case was acutely toxic in the early

stage, did not seem seriously ill, had a mild delirium and insomnia, but was rational when approached in conversation. Lethargy developed later, but no other symptoms referable to the nervous system. He had much eye fatigue during convalescence and completely recovered in six months.

Case VI, seen in consultation with Dr. Newell, Converse, Ind. This was of the meningeal type. There was ptosis and diplopia, severe pains in the head, neck and shoulders, and a constant broken delirium. Death occurred early in the illness.

Case VII, reported by Dr. Earl Daniels, Marion, Ind. Headache an early symptom, persistent and progressively worse, diplopia, ptosis complete in the right eye, paralysis of right side of face, cramps in the legs, spasm of the muscles of neck, during the second week development of delirium and lethargy and later difficulty in swallowing. Death occurred in two weeks.

Case VIII reported by Dr. E. O. Harrold, Marion, Ind., was ambulatory but showed the classic features of asthenia, weakness, mental sluggishness and lethargy, diplopia and ptosis, but no other localizing symptoms. He was with his business practically all the time. For six months there was dullness of vision, constant drowsiness, immediate fatigue on moderate exertion, little initiative and less endurance. In a general way he was physically well and mentally alert but all processes were slow. He said he felt as if there was a sack of cement on his head. The last of his symptoms disappeared two months ago — sixteen months from the beginning of his illness.

Cases IX and X reported by Dr. Brown, LaFontaine, Ind., were much alike. Early nasopharyngeal symptoms, diplopia, ptosis, and lethargy lasting about three weeks, with some spasticities. Both came to complete recovery in two months.

Cases XI, XII and XIII, reported by Dr. Richardson, VanBuren, Ind. One of these, a boy of four, was markedly toxic. The sequence of his symptoms was chilliness, vomiting, headache, photophobia, dizziness, lethargy, coma and death within a week.

The second, a girl of 20, was of the markedly toxic type. During the first week she had chilliness, aching and obstinate constipation. In the second week ptosis, diplopia, lethargy, coma, severe pains in the head and back, across the abdomen and into the legs and feet. During the later stages she could not swallow, and lay motionless with the eyes almost closed. Death occurred after eighteen days.

The third case, a man of 56, had an ordinary attack of influenza in January, this year. Two weeks later he complained of his head feeling heavy, slight occipital headache and later developed diplopia and lethargy. He was an ambulatory case at all times. He would fall asleep at

any time and any place except by persistent effort to keep awake. In a general way he was well, and no other cranial nerve symptoms appeared. He is a farmer and could not use riding implements on account of going to sleep. At the present time (eight months from his initial illness) he is very much improved and seems in a good way toward recovery.

The following cases are at the Marion National Sanatorium. They all show effects that have been present two years or longer, and are all young men who have seen service in the World war. They have had everything in the way of professional care, laboratory facilities, and vocational training that could contribute toward their recovery. I was given access to these cases through the courtesy of Dr. Wm. MacLake, Medical Director and Superintendent. I wish also to acknowledge helpful assistance given by Drs. Gilfillan, Cook and Halleck of the Sanatorium staff.

Case XIV, H. B. Muscular movements very slow, walks with difficulty, feeds himself slowly, over-abundant saliva, mentally alert. Condition progressively worse.

Case XV, L. C. One year ago paralysis agitans attitude, all motions very slow, fed himself, but spoon traveled from dish to mouth very slowly, mouth closed with extreme deliberation, mastication and swallowing being performed in the same manner, face blank with mouth slightly open, answered questions promptly and intelligently, but with measured speech.

At this time there is added to his condition, more difficulty in mastication and swallowing, excessive saliva, articulation almost impossible to understand, semi-bedridden and cannot dress or undress himself. His mentality is still clear, but mental processes very slow.

Case XVI, J. L. During the last year has shown progressive slowness of muscular activity, is semi-active, goes to school part of the time.

Case XVII, H. M. One year ago apathetic, speech labored and muffled, difficulty in swallowing, shuffling gait, expressionless face. At one time I saw this patient holding a cup of coffee to his mouth with both hands without any evidence of motion of any kind in any part of his body, and the whole effect and appearance could well have been the form of a man carved out of inanimate material. During the past year he has become bed-ridden, unable to walk or help himself in any way, is spoon-fed and has great difficulty in swallowing and cannot talk.

Case XVIII, F. T. Has been in bed three and a half years, lies on his back with legs partly flexed, feet in partial extension, arms at his sides, and across the chest with flexed wrists and fingers, cannot move, cannot talk, has great difficulty in swallowing his liquid food and when being fed makes a continuous moaning sound with a fear accent. There is marked emaciation with many ankylosed and deformed joints. He is expression-

less and shows no interest in his environment. His only method of communication is grunting or moving the eyelids.

Case XIX, J. M. During the past year increased difficulty in walking and talking, excessive saliva, increased difficulty in feeding himself, his words difficult to understand, but at times just after waking from sleep he speaks promptly and plainly and has better muscle activity for a time.

Case XX, G. K. One year ago the classic apathy, mask face, mental and physical reaction slow, stooped attitude and shuffling gait, sometimes the effort to talk being attended by pursed tremulous lips without any sound being made. During the year he is losing control of muscle movements and his enunciation is worse.

Case XXI, H. S. One year ago presented the classic features mentioned, had marked tremor of the tongue and face and would lie in bed much of the time if permitted. During the last year bed-ridden, unable to help himself in any way, spoon-fed and has a marked agitans of the upper extremities and facial muscles.

Five other cases in this group present much the same condition as mentioned and none of them show any encouragement toward recovery.

The cases reviewed in current medical literature have shown some features that have not appeared in the individual cases mentioned above. A great diversity of clinical manifestations occurs in the course of the disease when studied in a large number of cases. In a given case there may be manifest involvement of only the oculomotor area with diplopia and ptosis, or the manifestations may indicate an extension into the pons, giving rise to facial symptoms, or still farther down into the medulla giving rise to disturbances of salivation, mastication, swallowing and interference with the heart and respiratory rate, or the meninges or cortex may be involved, giving rise to a different type of symptom, or pathologic impulses may go out over the long nerve tracts giving rise to another type of symptom.

The one outstanding feature of practically all cases is a slowing down of both physical and mental processes. Except in the advanced cases muscles will respond to volitional impulses slowly and with hesitation. The mentality is usually clear but reactions are slow.

Practically fifty per cent of all cases present the paralysis agitans type of syndrome. The other fifty per cent will show physical and mental hebetude with retarded response, lack of endurance, loss of interest, initiative and power of concentration, localized or more general twitchings or tremors, choreiform movements, spasticities localized or more general, paralysis partial or more marked local or more general.

In many of these cases there is a social and physical history which suggests a fundamental status which may be a factor in the development

of the phenomena seen in convalescence and later. The dementia præcox symptoms, the types of neurasthenia and psychasthenia may the more easily appear from the excitation of a previous predisposition.

The various manifestations that appear in the acute stage, the stage of convalescence, or as true after effects, are the logical outcome of a severe inflammatory process in nerve tissue. The damage is essentially interstitial, especially in the earlier stages. The ganglionic cell may be affected in the process. There is the chemical effect of toxins, but the most potent factor is that of pressure from perivascular infiltration, infiltration into the white matter, hemorrhage, oedema and later fibrosis.

Ultimate recovery in a large number of cases seems very questionable. We have before us the hope that more may be done for these unfortunate individuals who are existing in a living death. The convalescence is so slow and the later results, as far as observed, are so persistent and intractable that our data at present may not wholly support the discouraging outlook.

DISCUSSION

DR. C. F. NEU (Indianapolis): There is no question that this condition is one of the most discouraging types of nervous disease with which we have to deal because of the uncertainty of the outcome. It is important to recognize it early because our prognosis will depend upon that, and it is easy to make a serious error in judgment by not recognizing it immediately or in the very early stages.

There is no question but that it is a systemic infection and that the nervous system is invaded secondarily, although some authorities take the attitude that it is primarily an involvement of the nervous system. It is generally admitted that the focus of infection is the naso-pharynx in the great majority of instances, but whether it reaches the nervous system through the general infection or follows the nerve channels is a disputed point.

The organism, while it has been isolated in a sense (so far as its being collected from the mucosa of the naso-pharynx, from different parts of the nervous system, and some have reported collecting it from some of the other organs of the body), is more constant in the naso-pharynx and nervous system than in other parts. It can be inoculated into some animals—not in all because some are more susceptible to it, the monkey particularly because of its close relationship to the human family, but the organism—whatever its character and whatever its constitutional make-up—can be collected from the animal.

In regard to the differential diagnosis, there are a number of diseases that have to be taken into consideration, and probably the most difficult are poliomyelitis and polioencephalitis, particularly the latter. The resemblance in the onset and in the symptomatology of these conditions is so great

that in many countries it seems to be recognized or assumed that they are very similar if not due to the same infective organism. Australia, South Africa, parts of Europe and Japan, were in a quandary for a long time as to whether or not they were dealing with a type of polio infection. I believe, however, that it is now accepted, in America, at least, that it is a different organism and certainly you do not see the type of after-effects in polioencephalitis that you do in epidemic encephalitis. I do not believe it is always possible to make a definite differential diagnosis. It is true that there are certain changes in the cerebrospinal fluid that we look for, so far as cell count and globulin content are concerned, but there are cases of polioencephalitis in which very little change in the cerebrospinal fluid is found, and there are many cases of epidemic encephalitis in which few changes are discovered in the fluid.

A word as to treatment. Heretofore it has been purely empirical—making the patients as comfortable as possible and building up their general health by all sorts of hygienic measures. Recently there has been a report by Dr. Ross, of Los Angeles, of a few cases treated intraspinally by some auto-serum, with apparently some benefit. It is difficult to see how any treatment of that kind is going to produce any change in the pathological condition found in these diseases. It may be that it has an effect upon the nerve cells or some of the uninjured pathways, but it is difficult for me to see how it can affect the parts already destroyed. In the early stages of the disease I can see how the autoserum could be beneficial and will not, in the future, hesitate to advise its use in such instances. I believe there is no possibility of its doing harm, and it may be of benefit.

DR. L. D. CARTER (Indianapolis): I was much interested to note that Dr. Fankboner emphasized the importance of the Parkinsonian type of lethargic encephalitis. While it is generally accepted that lethargic encephalitis is primarily a perivascular and interstitial disease, yet there are some features which lead us to think that it may be, in certain cases, primarily a paranchymatous degeneration, as is shown by the early involvement of the cortical cells and basilar nuclei. In the early stages we usually see the active symptoms of cortical cell swelling, that is, restlessness, insomnia and delirium, or, on the other hand, stupor and lethargy together with the evidence of more or less bulbar paralysis. In the later cases, or rather as a sequel, the Parkinsonian syndrome is of frequent occurrence, indicating an involvement either inflammatory or degenerative, of the striate body. I have observed a number of these cases, probably some thirty or forty in the past few years, which belong to the Parkinsonian type, though the typical, non-intentional, coarse, "pill rolling" tremor has not been present except in a few cases. The other classical symptoms, that is the muscular

rigidity, propulsive gait, the stooped fixed attitude, the mask-like, expressionless face, unblinking eyes, monotonous speech, drooling saliva, etc., are all in evidence, which leads us to believe that the pathology is primarily in the large multipolar cells found both in the caudate and henticular nuclei of the corpus striatum. As those cells have to do with automatic associated movements, their destruction is attended by muscular rigidity and rhythmic tremor. Occasionally, I have seen cases with a suggestion of athetosis, indicating an added invasion of the small motor cells of the neo-striatum which presumably are inhibitive in their function. It seems, therefore, that the infectious agent in lethargic encephalitis has a particular elective action on the cells of the corpus striatum.

As to the treatment, very little is to be expected. The damage has been done, the nerve cells have been destroyed, and I do not see how they can be restored by any sort of treatment. In the early stages, in the stages of inflammation, we may do much by continued spinal drainage and by auto-serum, but after degenerative changes have occurred, certainly little can be accomplished.

DR. ALBERT E. STERNE (Indianapolis): There has never been a time that I can recall in thirty years when we have failed to see cases of encephalitis. Not perhaps the intensive type of the past few years, which we stigmatize as the infectious or epidemic form, but the milder conditions of encephalitis with brain cell swelling. Years ago Siemering, speaking of polio-myelitis, pointed out that the primary infection was of constitutional type and that the nervous system was secondarily affected, by way of blood and lymph streams, with vascular involvement and perivascular infiltration, coincident with and prior to effects upon the nerve cells. The evidence of this has never been successfully contradicted to this day. Many years ago I called attention to oedematocyes of serous encephalitis as a secondary involvement of the nervous system, and I still hold to the belief that there is no primary parenchymatous disease of nerve tissue, even though the essential nerve cells be the first structure of the nervous system to be affected. I believe that it is always secondary to something else, either focal sepsis, constitutional infection, or intoxications. We meet conditions of encephalitis after many things, heat stroke, sun stroke; we meet with it in other infectious diseases; we meet with it in severe traumatism, secondarily; we meet with it in cumulative trauma, by duassociation of endocrination or change in the chemistry of the body; we meet with it so frequently that we are often tempted to make a diagnosis of the epidemic type when the epidemic type is not present. Dr. Neu very wisely called attention to the point that we have encephalitis from other causes, but we do not have the particular types which Dr. Fankboner has brought to our attention, except in the epidemic infectious form. Occasionally we meet with it in syphilis.

It is often present in that type of typhoid which we call the ambulatory, and not seldom we find cases coming into our care with all the characteristic symptoms of encephalitis in which the ordinary symptoms of typhoid are lacking, but which finally develop a true typhoid syndrome.

I have seen a few cases of the type to which Dr. Fankboner has called our attention, in which I thought that entire recovery occurred, but I am not so sure that they were true cases of epidemic encephalitis. In all of the cases where I felt certain that we were dealing with true epidemic encephalitis, I have seen no case of complete recovery. After effects are always present.

The outcome will depend primarily upon the intensity of the infection rather than the extent to which the nervous system has been damaged. If we have a wide spread, not so virulent type, I believe such cases may recover, but where we have intensive destruction I fail to see where the outcome can be favorable for any individual.

DR. W. A. FANKBONER (closing): As to recovery: Case I in my paper was one of the most classic, picture book types I have ever seen. His pathologic impulses involved practically the whole nervous system. He had, while in bed, the typical paralysis agitans position of the hands, the facies, the spasticity, and the careful walk after he was out of bed. He is well so far as I can determine, but I believe that if I had been in close contact with him before his sickness, and had had intimate knowledge of his condition then, I could find some definite change now. This patient told me one month ago that he was all right, had taken a new position of the same kind as before his illness, and is working all the time. In the case reported by Dr. Harold: This man told me at the time of writing this paper that he was all right. Since then he tells me he lacks the power of application and must urge himself.

I believe a true case of epidemic encephalitis, even though the patient may seem right, leaves some change that can be definitely shown on careful study.

THE ETIOLOGY OF RETINITIS PROLIFERANS

BERNARD J. LARKIN, M. D.*
INDIANAPOLIS

By the term "retinitis proliferans" we designate that condition where fibroid changes have taken place in the retina, accompanied by vasculitis, so that dense masses of connective tissue extend out from the retina into the vitreous, often covering a portion of the fundus, and at times even the papilla itself. These masses are traversed by blood vessels which have been newly formed in the

*Presented before the Section on Ophthalmology and Otolaryngology of the Indiana State Medical Association, at the Terre Haute Session, September, 1923.

retina. The ophthalmoscopic picture given by different observers is fairly constant, though varying slightly in detail. Thus, Schlivek several years ago described a case where the greater part of the nerve-head was covered by a white, fluffy mass traversed by numerous vessels, the mass being irregularly cone-shaped and extending anteriorly almost to the center of the globe. Some of the vessels were dark red, evidently newly formed, as they showed no perivasculitis, while in others the perivasculitis was very marked. While some of these vessels extended backward to the base of the mass and turned upon the retina, others extended posteriorly for a short distance from the apex, then swung over to the retina. The vessels upon the retina were elevated and gave off other numerous, very fine, aborescent vessels.

In a case reported by Dupuy, a veil-like membrane was observed attached to the center of the disc. This membrane was slightly fibrous at its origin and extended to the right about one and a half millimeters into the vitreous, being apparently attached or agglutinated to several of the larger vessels. Thence it swept over the temporal region, spreading out in the shape of a fan. About two millimeters from the origin a dense collection of pigment granules was visible, and smaller collections of pigment were scattered over the membrane. There were no new blood vessels in this structure, and, except in the pigmented areas, it was fairly transparent. The descending retinal artery made a distinct loop out into the vitreous, the nasal branch passing over a branch of the retinal vein which seemed to be deeply imbedded in the retina itself. There was no vitreous opacity or other abnormality.

The exact etiology of proliferating retinitis is uncertain, but that the condition is dependent upon preceding retinal or vitreous hemorrhage is now well established. Recurrent retinal hemorrhages have been quite widely discussed in recent ophthalmic literature, but opinions as to the cause producing them are still at variance. At the International Medical Congress held in London in 1881, Henry Eales, perhaps the best known English ophthalmologist of his day, presented a paper on *Primary Retinal Hemorrhages in Young Men*, which is the first recognition of this disease as a clinical entity. The description given by Eales in his original publication is as follows:

"In each case it was the left eye which was primarily affected. When first seen the vitreous was opaque from hemorrhage into it. The fundus oculi was either invisible, or only visible throughout a small portion of the upper part of the periphery, and here extravasations of blood were found in the retina, either quite recent or partially decolorized. There was often a rapid diminution of the opacity from fresh hemorrhage after a few weeks or months. Many recurrences occurred. In each case vision appeared to suffer only in proportion to the opacity of the vitreous. Between

attacks it sometimes recovered its normal acuity, though muscae were complained of and opaque shreds were still discoverable in the vitreous. The vessels in each eye were found to be large and tortuous, especially the veins, which were also remarkably dark-colored. * * * * The hemorrhages were usually confined almost entirely to the extreme periphery of the retina, only very occasionally being found near the disc, and then around the larger venous trunks. The yellow spot was not involved in any case. The extravasations were almost invariably large and of round or irregular form, not flame-shaped. They could often be seen to have proceeded from venous radicles which were obscured by them.

"The ultimate result of these repeated extravasations was the formation of large whitish, and sometimes, quite glistening patches of degeneration at the periphery of the retina, with some degeneration of the chorio-capillaris and occasionally small round circumscribed areas of detachment of the retina. In these spots the terminal branches of the retinal veins were sometimes lost; occasionally the veins could be seen passing over these areas, becoming here suddenly tortuous in a remarkable manner, like corkscrews. On the areas of detached retina a branch of the retinal veins was invariably found, and more than once a many-tailed opacity of the vitreous was found to be attached to the veins at the most bulging point of the detachment. * * * * In some cases permanent opacity of the vitreous resulted."

It was Eales' opinion that the source of the hemorrhages was either the venous radicles or the capillaries, and he attributed their occurrence to a "neurosis affecting both the circulatory organs and the digestive system, leading on the one hand to partial inhibition of the muscular movements of the bowels, and to a vaso-motor contraction of the vessels of the alimentary canal, with inhibition of its secretory functions, thereby causing dyspepsia, constipation, malnutrition; and on the other hand to a compensatory dilatation of the systemic capillaries, especially those of the head, and in these cases of the retina, causing over-distension of the venous system and systemic capillaries, with liability to rupture on the occurrence of any intensifying cause."

The progress of the pathologic process which results in the formation of the fibrinous masses characteristic of retinitis proliferans is outlined by Collins and Mayou as follows: If the coagulation time of the blood is high, coagulation will occur more rapidly than usual, while absorption will take place slowly. When the corpuscles have discharged their hemoglobin the stroma is broken up and the result is the formation of cholesterin. The fibrin being either absorbed or organized, the endothelial cells from the blood vessels spread out into the vitreous, and the formation of bands of connective tissue then ensues with detachment of the retina as a not infrequent sequel. When

proliferating retinitis is due to trauma, war wounds, such as concussion of the globe, or penetration by a foreign body, offer frequent examples—there is often a resultant cicatricial process which pins down the retina by opaque, plastic-looking material instead of the detachment, which is more common in civilian practice, where proliferation is the result of extravasated blood.

There is, according to Zentmayer, no reaction in the vitreous as the result of the presence of hemorrhage or its derivatives. If the hemorrhage is large, absorption takes place by hemolysis, and the formation of connective tissue begins from the ciliary body or the retina, being more likely to occur if, besides the hemorrhage, there is some inflammatory reaction. In some cases the connective tissue is developed on the surface of the hemorrhage, making a membrane around it, and this formation of tissue may go with or without phagocytosis.

The clinical picture presented by Eales still accurately represents that now shown by the aid of more accurate instruments than were in use at the time he wrote. His theories of etiology must, however, be considerably altered in view of our increased knowledge of infection, and the interrelation between ocular manifestations and constitutional disease. Researches which have tended to demonstrate the tuberculous nature of certain types of endophlebitis have led ophthalmologists generally to assign infection by the tubercle bacillus as the causative factor in recurrent retinal hemorrhage. Zentmayer, writing in 1918, says that it is probable that there are several causes for these hemorrhages: tuberculosis, syphilis, gout, diabetes, or endotoxins, and that less constant factors are abnormal blood pressure and alterations in the composition of the blood, so that its coagulation time is affected. Manz believed that the cause of spontaneous hemorrhage resulting in the production of proliferating retinitis to be due to tuberculosis, syphilis, nephritis, or similar constitutional diathesis. Weeks was of the opinion that the essential etiologic factor in the production of retinitis proliferans is the production of membranes extending into the vitreous, and that the formation of such membranes must be preceded by fibrinous exudation or hemorrhage. Dupuy thought that the ophthalmoscopic picture seen in his case might possibly be due to the presence of "a remnant of the hyaloid artery," though the width of the area of fundus change after it approached the temporal half of the retina was a little broader than he thought consistent with the remains of the hyaloid artery; neither was the structure so fibrous and organized as one would expect to find the artery.

According to de Schweinitz, "Syphilis is undoubtedly a cause in certain cases," and he also connects the development of proliferating retinitis with tuberculosis of the retina. He notes likewise

that, "It has been ascribed" to anaemia, chlorosis, arteriosclerosis, menstrual disturbances and the hemorrhages which they cause. Zentmayer, in a more recent paper than the one to which I have referred, tells us that the view concerning the etiology which seems now to be meeting with most favor is that the disease is an autotoxic one, the source of the toxemia being in most cases the intestines. As a result of this toxemia, inequalities of the circulation occur, so that we have either too high or too low a blood pressure. Collins believes that the coagulability of the blood is raised and that this leads to the formation of thrombi in the venules which rupture as the result of the *vis a tergo*. Nieden is of the opinion that the cause of the hemorrhages is slow development of the sexual apparatus, which in the case of those most subject to the condition—young men near adolescence in almost all cases—is unrelieved, as in females, by menstruation. Zentmayer's own theory—advanced, however, as but a "thought" in his mind—is that disturbed secretion of some of the ductless glands may be an important etiologic factor. As a very definite picture of tuberculosis of the retina is often lacking, and the age and sex are fairly constant (that is, adolescence in the cases occurring in males), and the general condition of the patients is strikingly similar—lassitude, low spirits, general asthenia, and a tendency to abnormal size being practically always noted—he regards as reasonably conclusive evidence that an endocrine disturbance is the casual factor. "As the activities of the endocrine organs are interlocking, it would be impossible, probably, to indicate definitely the one at fault, although the symptoms point to the adrenals as the primary one." It is also significant that the administration of thyroid has in many cases resulted in marked benefit.

This view of endocrine imbalance as a causative factor is also put forward by a Belgian writer, Van Duyse, who reported a case of recurrent retinal hemorrhages with periarteritis, polar cataract, and apparent neuro-retinitis, which he regarded as due to a "pathologic state of the internal secreting glands." Tuberculosis and syphilis had both been excluded in this instance.

Tuberculosis, however, remains the most probable causative factor in the great majority of cases, and in those few where treatment has apparently been of some benefit the therapy has followed the lines laid down for the care of other forms of tuberculous infection.

BIBLIOGRAPHY

- Davis, A. E.: Recurrent Retinal Hemorrhage of Adolescence. *Am. J. Ophth.*, 3:657, September, 1920.
 Dupuy, H. J.: Case of Retinitis Proliferans. *New Orleans M. & S. J.*, 73:423, April, 1921.
 Eales, Henry: Primary Retinal Hemorrhage in Young Men. *Ophth. Review*, 1:41, 1882.
 Schlève, K.: Retinitis Proliferans. *Arch. Ophth.*, 48:86, 1919.
 Zentmayer, Wm. Retinitis Proliferans. *Penna. M. J.*, 21:651, July, 1918. Recurrent Retinal Hemorrhages. *Am. J. Ophth.*, 3:652, September, 1920.

RETINITIS PROLIFERANS REPORT OF CASE*

EDWIN J. LENT, M. D.
MARTHA BREWER LYON, M. D.
SOUTH BEND

Retinitis proliferans described by Casey Wood in the American Encyclopedia of Ophthalmology as bluish white or grayish masses of connective tissue which develop in the retina and extend into the vitreous humor. The new tissue obscures the optic disc and often is disposed in interlacing bands. It is caused by repeated and extensive hemorrhage into the retina and vitreous humor; the masses of unabsorbed blood producing atrophy by pressing on the retina and causing proliferation of the connective tissue. Masses of newly formed tissue may follow the general course of the retinal vessels, some of which lie under and some over the mass. Often there is a development of new blood vessels.

In a shorter description by Roemer retinitis proliferans consist of bluish white masses that project in part into the vitreous and are composed of an extensive proliferation of connective tissue. The masses usually send offshoots into the vitreous. The vessels appear at the margins of the mass. The masses of connective tissue almost always are connected with the papilla. Retinitis proliferans is to be ascribed to hemorrhages that have become organized into connective tissue.

Manz describes retinitis proliferans as an affection in which masses of connective tissue extend out from the retina into the vitreous and cover a portion of the fundus, even the papilla itself. Into the masses run new formed vessels from the retina. In a number of these cases it is probable that these masses of connective tissue have been preceded by hemorrhages which were poured out from the retinal vessels into the vitreous and afterward became organized.

All agree that the condition is caused by hemorrhages into the retina and vitreous so the cause of hemorrhages must be sought. In the earlier case reports one finds almost as many causes ascribed as there were cases reported, thus too rapid development of children, rapid changes in temperature and prolonged exposure to heat and cold; menstrual disturbance; epistaxis; constipation; dyspepsia; congenital gout; oxaluria; phosphaturia; excess of urea, syphilis, congenital and acquired; anomalies of the blood in pernicious anemia, leukemia, disturbances of circulation; local vascular disease; malaria, sepsis; intoxications. Other causes assigned have been nephritis, diabetes, Hodgkin's disease, trauma, and derangement of the endocrine glands, especially the adrenals.

The earliest intimation that hemorrhage from the retinal vessels may be due to tuberculosis

came from Noll in 1908. Since that time some of the later investigators have confirmed this opinion. Hawthorne as late as 1922 stated that retinal hemorrhage was not to be expected in tuberculosis, typhoid fever, paratyphoid fever or in colon bacillus infections while quite frequent in septicemia and in septic endocarditis; pernicious anemia and leukemia; rarely due to malaria, very rarely to syphilis; he had never seen it in hemophilia or Hodgkin's disease and only once in purpura hemorrhagica.

Etiology. Retinitis proliferans occurs more often in young adult males, affecting the left eye as a rule before the right eye. The consensus of opinion of those who have seen the greatest number of cases seems to be that it is usually preceded by ocular hemorrhages and that these hemorrhages are most often due to retinal tuberculosis.

Jackson in 1916 stated that in the retina the lesions are closely associated with the vessels; that it may be too much to assume that recurring hemorrhages into the vitreous in young persons and retinitis proliferans are always due to tuberculosis but certainly the finding of the tubercle bacilli in some of the retinal lesions, the characteristic tubercular structure in others, the general and local reactions of these patients to tuberculin injections and the control and cure of numerous cases by tuberculin treatment come as a revelation in a very obscure field of ocular pathology. In so far as retinitis proliferans is associated with recurring hemorrhages in young patients, there is a strong assumption that it is of tuberculous origin. But the active stage is passed and the lesions are well on the way to healing through the formation of scar tissue before the case assumes this character. The bands of tissue seen in the retina and vitreous have the same relation to the active lesion as have connective tissue scars found in other organs. Retinal lesions are mainly vascular and are often not seen on account of the haziness produced or on account of the actual hemorrhage into the vitreous.

Spencer in 1917 stated that the hemorrhage from the retinal vessels in young adults is almost always due to tuberculosis of the retinal vessels. That this hemorrhage is just as characteristic of tuberculosis as is hemorrhage from the lungs in the pulmonary form of the disease. Hemorrhage into the vitreous if more marked or subhyaloid if slight with subsequent loss of vision may be the first intimation that the patient has tuberculosis. On the other hand, hemorrhages may occur several times especially if only one eye is involved before there is sufficient obscuration of vision to attract the patient's attention. One striking feature of the disease is the fact that such patients rarely show evidences of tuberculosis even after a thorough and careful physical examination and they often look the picture of health.

*Presented before the Section on Ophthalmology and Otolaryngology of the Indiana State Medical Association at the Terre Haute Session, September, 1923.

Modes of Infection. Isolated tubercles within the body may rupture into a blood vessel and produce infection of the retinal vessels by metastasis. Mayou, according to Spencer, thinks the infection may gain entrance to the retina along the optic sheath while Parsons believes transmission by lymph stream is probably the commonest mode of infection so that the sheaths suffer most frequently. Axenfeld, as quoted by Zentmayer, suggests that where vitreous hemorrhages occur without previous appearance of tuberculosis of the eye they may be due to tuberculosis involvement of retinal vessels either directly or indirectly by the toxins of the bacilli.

Types of Disease......Davis thought that his two cases, one reported in 1912 and seen again in 1920 and the second reported in 1920 represented different types of the same disease. In one the veins, especially at the periphery, are involved, while the optic nerve and the veins in and near the optic nerve are not involved. In the other type the central veins and optic nerve are involved. Spencer thinks that retinitis circinata as described by Fuchs, is probably an atypical form of proliferating retinitis due to tuberculosis of the retinal vessels.

Pathology. Hemorrhages into the retina and vitreous followed by the proliferation of connective tissue have been interpreted in various ways. The source of the hemorrhages has been thought to be from the choroidal vessels in some instances while in others from the vessels of the ciliary body.

In 1897 Zimmerman reported a case of traumatic laceration of the optic nerve and the central retinal blood vessels followed by retinitis proliferans. He watched the re-establishment of the imperfect circulation through the capillary anastomosis at the periphery of the disc; formation of fine new blood vessels at the disc; restitution of circulation owing to new-formed vessels which entered from the choroidal opening and from the optic sheath and from the episcleral tissue, i. e., the ciliary vessels and communicated with the former retinal vessels. Collateral blood supply was very scanty, a few retinal veins showed varicose portions and a few vessels contained a small amount of blood. Most of them were transformed into empty cords. At the optic disc itself vessels were not refilled, some only exhibited axial red lines. New formed blood vessels could also be observed on disc and in retina; then followed degenerative changes of retina with development of connective tissue covering the disc and a great portion of the retina. The blood vessels were partly hidden by it. Extensive tracts of white and gray fibrous tissue some places projected plus 6 D. Schultze thinks the new masses not inflammatory and exudative but rather deposits of unabsorbed blood fibrin. The deposits which are in intimate connection with the retina cause

atrophy of nervous elements of retina, hypertrophy of connective tissue elements and finally themselves become transformed into cicatricial tissue.

Zentmayer and also Sayou believe that the adrenal secretion acts directly on the arterioles and sustains their tone and, further, that this function when deficient owing to relaxation of these precapillary vessels may be in recurrent vitreous hemorrhages of adolescence an indirect cause of the hemorrhages. They further pointed out that the sympathetic system is studded with adrenal medullary substance supplied by the medullary portion of the adrenals and say if this is true, the sympathetic ocular supply must also suffer, another cause of the vasodilatation probably of the choroidal vessels.

Fuchs recorded recently the anatomic changes which he observed in a large number of vitreous hemorrhages of spontaneous origin. Hemorrhages occurred on the outer surface of the vitreous in the posterior lenticular and orbicular spaces and into the vitreous itself. In rare cases they were confined to the outer limiting layer, the blood corpuscles being within the lamellar structure of this layer or they were spread immediately under it, coming usually from the ciliary region, or they penetrated into the interior of the vitreous. The change in the hemorrhages most frequently noted was hemolysis, i. e., exit of hemoglobin and lipid from the corpuscles. This process took place within a month of the time that the hemorrhages appeared in the vitreous but did not occur uniformly. There was no reaction in the vitreous as the result of the presence of hemorrhage and its derivatives. The absorption of the blood was in part effected by phagocytosis but in case of large hemorrhages absorption was due to hemolysis and the formation and removal of the granules, or where the hemorrhage was traversed by connective tissue, the gradual disappearance of the corpuscles enclosed in its meshes. The formation of connective tissue began from the ciliary body or the retina and was more likely to occur when besides the hemorrhage there was some inflammatory reaction. It was first seen fourteen days after the occurrence of the hemorrhage in the form of fibroblasts growing toward the blood then in between the corpuscles to form long narrow threads of membranes. In other cases the connective tissue was developed on the surface of the hemorrhage, making a membrane around it. This formation of tissue may go on with or without phagocytosis.

Schreiber found in experimental work that the greater part of the blood injected into the vitreous disintegrated at once at the site of the injection and was taken up by migratory cells from the ciliary processes and the perivascular lymph spaces of the central vessels while the anterior chamber took no part. In the greater number of cases in the course of one or two weeks, there

could be demonstrated connective tissue formation presenting the microscopic picture of retinitis proliferans. Some reaction of the neuroglia was seen at the points where groups of homesiderin, containing migratory cells accumulated in the retina; this usually occurred in the lower part. Here also was seen glial proliferation of Muller's fibers. The connective tissue formation of the papilla plays the most important part in the development of retinitis proliferans.

The formation of connective tissue following some hemorrhages and not others, has not been satisfactorily explained. Wurdemann in 1922 thought there existed a condition of the blood which disposed to rapidity of coagulation and slowness to absorption of hemorrhage which was followed by the organization of the blood clot. He quotes Collins and Mayou that if the coagulability of the blood is raised, it leads to thrombi in the venules which rupture. Bleeding followed by proliferation is always venous. Fresh bleeding is partially removed through the central vascular construction but the greater part is disintegrated in situ and taken up by migratory cells which originate from the ciliary processes and the connective tissue network of the papilla. If the coagulability is high, coagulation takes place more rapidly than usual and absorption follows slowly. The corpuscles discharge their hemoglobin, the struma is broken up and cholesterin is set free. The fibrin is either absorbed or becomes organized. The endothelial cells from the blood vessels spread into the vitreous and bands of connective tissue form.

Casali observed that large coagula which remained attached to the walls of the retinal vessels near the disc were those especially liable to be followed by new formation. The connective tissue became active by the irritation of the extravasated blood and proliferated, producing white masses which concealed the optic disc and followed the direction of the blood vessels. When connective tissue proliferation took place some special condition must exist or agents unknown must act on the internal structure of the eye.

Cirincione in the microscopic examination of two cases thought the new formation started from the walls of the blood vessels near the disc and that the hemorrhages that are frequently seen are accidental and not the cause of the affection. He believes that the proliferation of the connective tissue from the adventitia is the consequence of the irritation produced by chemical and toxic substances in the vitreous. Diagnosis rests on the ophthalmoscopic picture, although this cannot always be relied upon when the media are hazy with hemorrhage.

Jackson describes a case which was seen early. The retinal tubercle is usually connected with a vein or artery. A yellow spot appears with indefinite margins and gradually covers over the af-

fected vessels. It reaches full size in a few days. An artery when affected shows little change on either side of the exudate but a vein becomes dilated in limited portions so these parts are three or four times the diameter of a normal vessel. These retinal exudates after a time become vascularized and fade away in many cases, while in others the exudate is converted into fibrous tissue. He states retinal tuberculosis is undoubtedly the most common cause of recurring retinal hemorrhages and when these hemorrhages become absorbed and replaced by shiny bands of fibrous tissue, there results the condition of retinitis proliferans. Spencer believes that the first evidence of retinal invasion of tuberculosis is hemorrhage which may be multiple and pin points in size or in large masses to fill the entire vitreous. Later the retinal vessels show slight perivascular thickenings, still later extensive fibroid changes about vessels, then fibrous bands. Fibrous changes undoubtedly occur subsequent to hemorrhage, although both go hand in hand.

Microscopic examination of enucleated eyes has been made in a few instances in which tubercle bacilli have been found. Agricola and Thies examined an eye that had suffered from serious tubercular keratitis and iritis which had healed under tuberculin treatment but left the eye blind. Later the eye was enucleated. There was chronic tuberculosis of the ciliary body, with but slight involvement of the choroid and the retina seemed to become infected through the vitreous. Tissue like that of retinitis proliferans was found near the disc. There were tubercles in the retina, chiefly perivascular. Clearly it was shown that retinal disease was secondary to that of the cornea and iris. The involvement of cornea and iris was doubtless too early for the ophthalmoscopic examination, so even had the retinal lesions been primary these could not have been diagnosed prior to enucleation. Stock in the anatomic examination of an eye in miliary tuberculosis with retinal hemorrhages in both eyes, found miliary tubercles in the left choroid. Histological examination showed hemorrhage in the nerve fiber and the ganglion cell layers of retina. No bacilli were found in the retina but hemorrhage appeared to be due to general tuberculous infection. Otori made microscopic examinations in two cases. In one, the left eye enucleated; showed tubercle bacilli especially numerous in masses of round cells along the veins of the retinal periphery. In the second case, the left eye, enucleated on account of hemorrhagic glaucoma secondary to plastic iritis, tubercle bacilli were found in every part of the retina, none in the choroid. They were also found in the posterior part of the ciliary body and numerous on the optic nerve head. Fleisher's case, the eye enucleated later for glaucoma showed changes about the retinal veins. Typical groups of epithelioid and giant cells, in places showing

slight necrosis, which were present, forming nodules lying on one side of vessels or sheaths surrounding them, were considered tuberculous formations. No tubercle bacilli were demonstrated. These groups were supposed to prove that hemorrhage of this type was due to actual tuberculous foci and not to tuberculous toxin.

Diagnosis of Tuberculin Origin. Jackson believes that repeated injections of old tuberculin the best of the diagnostic tests, especially if the general reaction is accompanied by a focal reaction. A single injection is not enough. Diagnosis in many cases must be reached by the exclusion of syphilis, sinus disease, dental disease, other diseases of vessels and autointoxication arising from the gastro-intestinal tract. Spencer states that diagnosis of tuberculosis of the retinal vessels by diagnostic use of tuberculin is more positive than the diagnosis of syphilitic iritis because a patient gives a positive Wassermann reaction. Tuberculin even in positive clinical tuberculosis cannot always be depended upon. Von Hippel reports a case of an enucleated eye found full of tuberculous masses with general reaction obtained only after six injections.

Prognosis. The prognosis is grave. The eye is always damaged, it goes on to blindness as a rule either through organized exudate in the vitreous or by retinal detachment.

Treatment. This has been along many lines. It should be an attempt to prevent the recurrence of the hemorrhage and to bring about the absorption of extravasated blood. Tuberculin, alterative drugs such as potassium iodide, Donovan's solution, syrup of the iodide of iron, syrup of hydriodic acid in large doses have been used. Jackson advocates outdoor life, favorable climatic conditions, and good food. He believes that there is a tendency to give tuberculin in too large doses and to repeat it too often, never more frequently than once a week, and even this is often too frequent. It is safer to begin with an interval of two weeks between injections. Dose should be kept below that which will produce a general febrile reaction. Even the slightest rise of temperature should be avoided, also avoid a perceptible focal reaction when no rise in temperature or other evidence of a general reaction is perceptible. Such focal reactions as marked increase of hyperemia, clouding or swelling are especially to be avoided. Ophthalmoscopic examination should be made the day after each tuberculin injection and when the fundus conditions are marked by haziness of retina or vitreous, or hemorrhage into the vitreous, the dose should be kept small and only increased slightly and at long intervals.

Spencer thinks therapeutic administration of tuberculin, proper diet and outdoor life will do much to save the remaining vision and will often restore some of that already lost. New tuberculin doses of 1/10,000 to 1/20,000 mg. in adult. Begin with very small dose and gradually increased,

injections not repeated in less than two to four or even six weeks. Give too little rather than too much. An exception is made when tuberculin is given for diagnosis, then repeated every three, four or five days.

Relapses occur and a long interval must elapse before one is justified in considering tuberculosis of the eye as definitely cured. Unpleasant experience is often avoided by injecting tuberculin in very small doses and at long intervals because moderately severe or severe reactions can then be avoided. In most injections there should be only slight local reaction for if the patient responds with moderate or severe general reaction, he is liable to new retinal hemorrhages with loss of more vision. This is more likely with the first few injections than after the patient has been under treatment. The psychological effect of small doses is desirable. This treatment requires months and even years but prolonged treatment is better than blindness. Administration of tuberculin should be directed by an ophthalmologist, the fundus should be examined on the second or third day following each injection, especially if any reaction.

Bogardus in 1920 outlined the diagnostic routine and treatment at Bellevue Hospital. Therapeutic use of tuberculin brought the disease to a standstill. Hygienic measures are of utmost importance, high caloric feeding, open air 24 hours of the day, no violent exercise, moderate exercise not to the point of tiring, bowel regulation, careful attention to digestion. All foci of infection should be removed, as suspected tonsils, or infected sinuses. Locally, atropine is employed to put the ciliary muscle at rest. Injection of tuberculin where eye lesion is the principal one, a very small dose 1/50,000 mg. to avoid focal reaction, every five days, second dose 2/50,000. In the end 1 mg. once a week is not exceeded.

Angelucci had good results in four cases of recurrent hemorrhage by feeding thyroid.

Operative measures that have been tried as a last resort have not been entirely successful. Ligation of the common carotid artery in Derby's case was followed by rapid improvement at first but later was followed by new hemorrhage with vision entirely lost, while Mayweg's case after one and one-half years had vision 20/40, Axenfeld's first case twenty-six months after had vision 6/12, his later case six months after had vision 6/9. Kyrieleis on a case totally blind in the left eye from relapsing ocular hemorrhage and right eye apparently doomed did five venesections at intervals of from eight to ten days, withdrawing about 250 c.c. of blood each time. These were followed by rest in bed and the administration of potassium iodid. No new hemorrhages occurred within seven years. Greaf trephined the right eye of one of Davis' cases in which there was a detachment of the retina with marked improvement for about

three months. The detachment recurred and a second trephining did not help.

RETINITIS PROLIFERANS; CASE REPORT

On January 25, 1923, K. E. B., an American, 27 years of age, well built and nourished, consulted us for impaired vision in both eyes.

On January 22, 1922, following excessive use of eyes in tracing a faint blue-print, a blackness appeared before one eye and five or ten minutes later before the other eye. The patient consulted an eye specialist at Jackson City, Miss., who diagnosed the condition as hemorrhage in both eyes. In two or three months the vision cleared, the right eye reaching normal before the left, and glasses were then given by an optician. Two months later he consulted the same oculist, who gave him potassium iodide. The urine and blood pressure were normal at this time. In September, 1922, on returning to his home town, he consulted an oculist at Grand Rapids. Wassermann reaction and urinalysis were found negative. Examination of heart and lungs also negative; vision normal and $+1.75$ spheres were prescribed for each eye. On December 25, 1922, following two weeks of confining work checking columns of figures "the left eye again suddenly went bad."

Present History. One month later we saw the case. Vision right eye 20/20, vision left eye 20/200. No lens improved either eye. The details of the fundus were very indistinct at this time. In the right eye the amount of swelling of the nerve head was measured by $+8D$. No detail of the vessels could be seen. In the left eye a white band extending from above downward over the nerve head, thence in toward the nasal side, could be seen but no vessels. Fields, right eye, contracted for form and colors in upper nasal quadrant. Fields, left eye, contracted for form and colors in upper and lower temporal quadrants with interlacing.

Sinuses clear under transillumination and stereoscopic x-ray and x-ray examination of teeth showed three with apices suggesting infection. Cultures made from these apices, on blood agar yielded scattered colonies of staphylococci and pneumococcus-like organisms. Urinalysis negative, blood and spinal fluid Wassermann reactions negative. Sugar tolerance test normal, urea, creatinin and uric acid content of blood normal, blood counts, white, red, and differential normal. Blood coagulation, time 5.25 minutes, syringe and tube method. Diseases of heart and chest were excluded by careful chest examination. Blood pressure was normal. No history of tuberculosis, syphilis, diabetes, or other causative disease could be elicited from the patient regarding himself or in his family. He had passed a thorough eye examination for the aviation service during the war. The amount of papillitis and inability to see details of the fundus rather suggested the presence of some brain lesion especially as the fields improved materially following the spinal puncture

for the Wassermann test. A second stereoscopic x-ray of the brain cavity revealed nothing abnormal.

Fields were taken in January, February and March about every two weeks, while keeping the patient on potassium iodide with local applications of dionin. There was a steady improvement in the vision and fields in each eye, more in the right than in the left. On May 19, 1923, the papillitis had disappeared in the right eye and the fundus could be distinctly seen. The nerve head with its vessels could be made out but in front at a different level, apparently in the vitreous, could be seen a whitish band extending downward in the lower nasal quadrant and upward and inward in the upper nasal quadrant. In the center of this white band ran a blood vessel giving off smaller branches upward and outward which in turn formed a meshwork along its whole length. In the lower temporal quadrant each small branch terminated in a black spot. In the upper nasal quadrant at the end of the white band a vessel extended directly downward to the lower nasal quadrant, giving off minute branches forming a meshwork. In the left eye no detail could be made out, only a broad white band entirely covering the nerve head and extending vertically as far as could be seen and downward at a slight angle toward the nasal side. At this time the condition was definitely diagnosed as retinitis proliferans. The patient continued to improve.

On July 21 the patient stated that the previous week following a severe coughing spell both eyes had become blurred. Vision in the right eye was 20/20, fields contracted, eye ground about the same with possibly a few more black spots. No active hemorrhage. Vision in the left eye less than 20/200, fields much reduced, and only the broad white band with no details in the eye ground.

The patient stated that on first getting up in the morning the vision in the left eye seemed quite distinct, but on moving around a black curtain dropped from above, so it was arranged that on the next examination the eye ground should be studied before the patient arose. Accordingly on the morning of August 14, 1923, before the patient had arisen, the left eye, having been previously dilated, was carefully studied. With a plus 8 D. lens the white band was outlined and toward the nasal side two groups of fine vessels branching out fanshaped above with minute spots near their terminal points. As the eye rotated downward, the white band was entirely lost in a black curtain, no details of which could be made out. This may or may not be due to a detached retina.

At this time another sugar tolerance test was made, also a blood count. These showed nothing unusual. The chest was x-rayed following another examination by a second internist. This showed a slight thickening of the pleura in the apex in the right lung, although no active process

could be detected by the physical examination.

In conclusion, the case seems to be one of retinitis proliferans of tuberculous origin.

No treatment by the use of tuberculin has been given in this case. A hygienic routine has been outlined with certain restrictions as to muscular exercise and over-use of eyes. So far the patient has done well. Diagnostic injections of old tuberculin would necessitate several weeks in bed and curative injections of tuberculin are in the experimental stage. With the greatest of precaution and the smallest of doses of tuberculin even to the 1/500,000 mg. new hemorrhages have occurred with permanent loss of an eye.

DISCUSSION

DR. A. B. MARSHALL (Indianapolis): In my opinion nothing definite can be said about the etiology of retinitis proliferans. That it is a condition of metamorphosed fibrinous coagula is the position held by most observers. There are others who claim it may be an overgrowth of the adventitia of the blood vessels surrounding the disc. Others maintain it is a proliferation of the neuroglia, while still others claim it is a condition in which the hyaloid artery figures.

I do not think it is sufficient to say that hemorrhage is the cause of this condition. Otherwise Weeks, who examined 24,000 individuals, would have seen probably more cases of retinitis proliferans than the two which he reported.

The tuberculosis men tell us that tuberculosis *per se* is not a damaging condition, but rather harmless. But when you have a pathogenic germ together with tubercular infection, then you get destructive changes.

That the condition is associated with constitutional dyscrasias we all admit.

DR. J. P. WORRELL (Terre Haute): Retinitis proliferans is an incident, not an entity. The cause may be systemic—from tuberculosis or nephritis, or it may come from toxic infection, but these do not determine the nature of the thing we are discussing today. These diseases are responsible for hemorrhages which constitute traumatism, and the traumatism sets up changes which we call retinitis proliferans.

Many years ago I had a case, that of a child shot through the eye. The shot entered between the ciliary body and the lens without any evidence whatever of either tissue being injured. Beyond the perforation no other evidence of injury was present, but within an hour effusion took place under Tenon's capsule, and the diagnosis of foreign body having passed through the eye confirmed. The eye rapidly recovered, sight became perfect, the only subjective evidence of injury being a small defect in the margin of the field. The case was discharged, but coming under my care for other reasons some months later, the fundus showed characteristic appearance of retinitis proliferans. After many years the eye is

totally blind, tension minus, lens densely white and opaque. Since that case I hesitate very much to do anything that may cause a local hemorrhage.

DR. GEORGE SMITH (New Castle): In the past two years I have examined the eyes of the 450 patients at the Indiana Village for Epileptics, as well as doing the ear, nose and throat work. Only one case of retinitis proliferans has been found. This in the face of the fact that every patient that is admitted undergoes thorough physical examination, with one or more blood and spinal Wassermanns, and the percentage of positive Wassermanns is very high.

In the majority of eye-grounds we find a great vascular change. Choroiditis is a very common occurrence. Those cases who have repeated seizures have not only increased intracranial pressure, but also increased blood pressure. So typical is this that we speak of the eye-grounds as the "epileptic fundus." In a person of twenty to thirty the eye-grounds, the physical and arteriosclerotic changes, are those of a much older person. So as tuberculosis is ruled out on admission, and syphilis shows in a very high percentage, I think this corroborates the point Doctor Larkin makes in his paper.

DR. B. J. LARKIN (closing): The purpose in presenting this subject to the section was to hear from our learned and more experienced members if this condition is as infrequent as we were taught.

During the past two years I have examined hundreds of claimants for the Veterans' Bureau, and encountered retinitis proliferans several times. It occurred to me that these same men would not have sought treatment if they were in civilian practice and there was not a possibility of receiving compensation. It is always difficult to determine whether this condition is due to military service or not.

There were two other cases in which I know the cause. One was syphilis, and the other a hemorrhage caused by the removal of a foreign body from the vitreous. Both developed retinitis proliferans.

The more recent theory advanced, that of the internal secretion, should be given consideration. This theory is of recent origin and consequently has not been thoroughly studied, yet it should be borne in mind.

DR. MARTHA BREWER LYON (Closing): In looking through the literature, I was unable to cover the subject entirely, especially recent cases, as there seemed to be so many. I tabulated about fifty-six. Of those cases there were only two that were accredited to some disturbance of the endocrine glands. There were two cases only that were accounted for by syphilis, while in the older literature syphilis was invariably given as the cause. In only two was it definitely stated that the Wassermann reaction was positive, one a case of acquired syphilis, the other congenital.

Eales has ascribed his cases to a syndrome of intestinal disturbance with neurosis. These were not recent cases.

The majority of the cases reported showed the presence of tuberculosis, either in the family or in the patient. The men in Colorado who possibly see more tubercular patients than we see have reported a number of cases of retinitis proliferans apparently due to tuberculosis. It seems to me that the tubercular etiology is one that should be investigated.

In our case in which the lungs were carefully examined and found apparently normal on the first examination, and in which we eliminated other causes and there was a recurrence of hemorrhage with diminution of vision on second examination, there was found in the apex of the lung a possible tubercular condition. I am rather inclined to accept the tuberculosis origin of the disease.

The treatment is in an experimental stage. One author has said he would rather be the third man to see the case than the first man to give tuberculin and possibly cause a hemorrhage and loss of vision. Jackson has been successful in stopping the hemorrhages and improving the vision to a certain extent. Others who have used tuberculin have not been so successful.

BIBLIOGRAPHY

- Agricola and Thies, in Spencer, *Ophthalmology*, vol. 13, p. 225, 1916-17.
- Angelucci, in Casey Wood Amer. Enc. Ophth., vol. 15, p. 5802.
- Axenfeld, T., *Arch. Ophth.*, vol. 23, p. 119.
- Axenfeld and Stock, in Gamble, *Ophth. Rec.*, vol. 25, p. 55, February, 1916.
- Bell, G. H., *Amer. Journ. Ophth.*, vol. 5, p. 531, July, 1922.
- Bogardus, F. B., *Amer. Journ. Ophth.*, vol. 3, p. 661, September, 1920.
- Casali, in Raia, *Amer. Journ. Ophth.*, vol. 5, p. 946, December, 1922.
- Cirincione, in Raia, *Amer. Journ. Ophth.*, vol. 5, p. 946, December, 1922.
- Davis, E. A., *Amer. Journ. Ophth.*, vol. 3, p. 657, September, 1920.
- Derby, G. S., *Journ. Amer. Med. Assn.*, vol. 49, p. 107, July 13, 1907.
- de Schweinitz, G. E., *Ophth. Rec.*, vol. 16, p. 409, 1907.
- Eales, *Birmingham Med. Rev.*, vol. 9, p. 262, July, 1880.
- Ellett, E. C., *Prac. Med. Ser.*, 1910. Eye, p. 85, 1910.
- Finnoff, W. C., *Amer. Journ. Ophth.*, vol. 5, p. 195, March, 1922.
- Fisher, J. H., *Trans. Ophth. Soc. United Kingdom*, London, vol. 18, p. 150, 1897-8.
- Fisher, J. H., *Trans. Ophth. Soc. United Kingdom*, London, vol. 41, p. 235, 1921.
- Fleischer, B., *Ophthalmology*, vol. 11, p. 113, 1914-15.
- Flemming, P., *Trans. Ophth. Soc. United Kingdom*, London, vol. 18, p. 154, 1897-8.
- Fuchs, in Zentmayer, *Amer. Journ. Ophth.*, vol. 3, p. 652, October, 1920.
- Gamble, W. E., *Ophth. Rec.*, vol. 25, p. 55, February, 1916.
- Gehrung, *New York Med. Journ.*, December 19, 1908. (Abstract.)
- Goldsmith, G. H., *Trans. Ophth. Soc. United Kingdom*, London, vol. 24, p. 117, 1903-4.
- Great, in Davis, *Amer. Journ. Ophth.*, vol. 3, p. 657, September, 1920.
- Harms, Clemens, *Ophthalmology*, vol. 11, p. 108, 1914-15. (Abstracted.)
- Harrington, R. R., *Amer. Journ. Ophth.*, vol. 3, p. 371, 1920.
- Hawthorne, C. O., *Brit. Med. Journ.*, 1922, vol. 2, p. 485, September 16, 1922.
- Jackson, Edward, *Ophth. Rec.*, vol. 25, p. 1, January, 1916.
- Jackson, Edward, in Bogardus, *Amer. Journ. Ophth.*, vol. 3, p. 661, September, 1920.
- Kipp, C. J., *Arch. Ophth.*, vol. 38, p. 349, 1909.
- Kyrieles, in Casey Wood, *Amer. Enc. Ophth.*, vol. 8, p. 5802.
- Manz, in Spencer, *Ophthalmology*, vol. 13, p. 225, 1916-17.
- Mayou, in Spencer, *Ophthalmology*, vol. 13, p. 225, 1916-17.
- Noll, in Spencer, *Ophthalmology*, vol. 13, p. 225, 1916-17.
- Otori, in Spencer, *Ophthalmology*, vol. 13, p. 225, 1916-17.
- Parsons, in Spencer, *Ophthalmology*, vol. 13, p. 225, 1916-17.
- Peter, L. C., *Amer. Journ. Ophth.*, vol. 3, p. 296, 1920.
- Raia, V. L., *Amer. Journ. Ophth.*, vol. 5, p. 946, December, 1922.
- Roemer, P., *Textbook of Ophthalmology*, p. 740, translated by Foster, 1913.
- Sayou, in Zentmayer, *Amer. Journ. Ophth.*, vol. 3, p. 652, October, 1920.
- Schreiber, in Zentmayer, *Amer. Journ. Ophth.*, vol. 3, p. 652, October, 1920.
- Schultze, in Zimmerman, *Arch. Ophth.*, vol. 26, p. 51, 1897.
- Scott, G. M., *Trans. Ophth. Soc. United Kingdom*, London, vol. 23, p. 71, 1902-3.
- Spencer, F. R., *Ophthalmology*, vol. 13, p. 225, 1916-17.
- Spencer, F. R., *Ann. Ophth.*, vol. 26, p. 272.
- Spencer, F. R., and LaRue, C. L., *Amer. Journ. Ophth.*, vol. 5, p. 472, 1922.
- Stephenson, Sidney, *Lancet*, vol. 189, p. 1141, 1915.
- Stock, in Spencer, *Ophthalmology*, vol. 13, p. 225, 1916-17.
- Van Duyse, *Amer. Enc. Ophth.*, vol. 15, p. 11298. (Abstract.)
- Von Hippel, in Gamble, *Ophth. Rec.*, vol. 25, p. 55, February, 1916.
- Wood, Casey, *Amer. Enc. Ophth.*, vol. 8, p. 5802; vol. 12, p. 9610; vol. 15, p. 11377.
- Wurdeemann, H. V., *Amer. Journ. Ophth.*, vol. 5, p. 337, May, 1922.
- Zentmayer, W., *Amer. Journ. Ophth.*, vol. 3, p. 652, October, 1922.
- Zimmerman, C., *Arch. Ophth.*, vol. 26, p. 51, 1897.

NONUNION IN FRACTURES: THE MASSIVE BONE GRAFT

Of 221 cases of nonunion analyzed by Melvin S. Henderson, Rochester, Minn. (*Journal A. M. A.*, Aug. 11, 1923), 184 were traced; 138 have obtained union, and forty-six failed to obtain union. The nonunion was in the lower extremity in 133, and in the upper, in eighty-eight. The femur was involved in seventy cases, forty in the neck and thirty in the shaft; the tibia in fifty-four; the forearm in forty-six; the radius alone in twenty, the radius and ulna together in eighteen, and the ulna alone in eight; the humerus in forty-one, the patella in nine, and the clavicle in one. The most common site for nonunion in the shaft of the femur was in the middle third; in the tibia, the lower one-third; in the humerus it was about evenly divided between the middle and lower third; in the radius and ulna combined, the site was most common in the middle third. In the radius alone it was most common in the lower

third, and in the ulna alone, in the middle third. The bones named in the order in which the best results were obtained are the patella, the radius, the ulna, the tibia, the humerus, the shaft of the femur, and the neck of the femur. The massive autogenous graft is preferred, and firm internal fixation of the graft to the fragments is also essential. The fact that occasionally success follows the use of metal plates, bone screws, beef-bone plates, and so forth, does not establish the fact that they are to be preferred to the bone graft. In a large series of cases there is ample proof of their inadequacy. Adequate external fixation must also be provided.

A WASTE OF BREATH

Panel Doctor (to gloomy patient): "You must drive away this depression. Practice a spirit of cheerfulness. Sing at your work, as it were."

Patient: "Sing at my work? Why, it can't be done, sir. I'm a glass-blower."—*Punch*.

THE JOURNAL
of the

Indiana State Medical Association

Devoted to the Interests of the Medical Profession of Indiana

ALBERT E. BULSON, JR., B.S., M.D., F.A.C.S.
Editor and Manager

Office of Publication, 406 W. Berry St., Fort Wayne, Ind.

JANUARY, 1924

EDITORIALS

THE ASSOCIATION'S ACTIVITIES

The midwinter meeting of the Council was held at Indianapolis during the holidays. Aside from the members of the Council and the officers of the Association there also were present a majority of the members of the various standing committees. Never in the history of the Association has there been a more important meeting nor one at which more was accomplished. President Earp, an especially enthusiastic and energetic official, is determined that not only will the next annual session of the Association be one of the best ever held, but that all of the activities of the Association shall functionate to the fullest extent. Accordingly he has selected his committees with considerable care, due regard being given to the reputation of various men for living up to obligations.

Perhaps the most important decision made at the meeting was to give a purely postgraduate program at the next session of the Association. The plan contemplates dry clinics in the forenoon, patients for the same being supplied by the various Indianapolis hospitals, and didactic lectures or addresses in the afternoon. It is expected that the latter will be illustrated by means of moving pictures, stereopticon, or opaque projector. There will be no discussion of papers. The men selected for the program, some of whom will be noted men from outside of the state, will be chosen from among those known to be qualified to present in a satisfactory manner the subjects assigned to them. It is expected that the scientific work will occupy three days, and the usual provision for the meetings of the House of Delegates and the social features are being arranged.

An important committee that was given new life was the Committee on Civic and Industrial Relations, which starts out this year with the idea of doing some real constructive work that will be of distinct benefit to the individual members of the Association. This committee hopes to aid any member of the Association in fighting his battles with the insurance companies, industrial concerns, and state boards of compensation in efforts to secure just recognition as a professional man, oftentimes as an expert, and be awarded fair and reasonable compensation for his services.

The Civic and Industrial Committee also hopes to introduce at the next session of the Association a resolution embodying a policy to be adopted by the Association for the guidance of its individual members in rendering services to the worthy poor, to industrial organizations, and to insurance companies, and to try to fix a standard governing expert medical testimony in all courts of trial, including testimony rendered before the State Compensation Board. At present doctors are subpoenaed by the sheriff to appear, oftentimes at great inconvenience and loss of time, before the compensation board to give expert testimony in a compensation case, and with no provision on the part of the court or either of the attorneys engaged in the case to compensate the doctor adequately for his services. He even may be told falsely that he can be compelled to give expert testimony for the fee given an ordinary witness. The committee hopes to point out the rights of the individual physician, and to secure his cooperation in carrying out a fixed policy concerning such procedures.

In connection with the subject of charity work the Civic and Industrial Committee will attempt to formulate a plan whereby the abuses of medical charity, as practiced by certain clinics, civic and charitable associations, and individuals, may be done away with. A recommendation will be made to the effect that a certain definite arrangement be made in every community for doing all of the medical charity work that is to be done in that particular community, and that under any and all circumstances the decision as to whether the work shall be considered wholly charity or not shall be left to the judgment of all the medical profession, either through its county medical society or a committee selected for the purpose, the ultimate aim being to make the services of the medical profession available to the worthy poor under any and all circumstances but to put an end to the abuses which lead to loss of self respect and pauperism on the part of a growing number of people in every populous community. The propriety of establishing community clinics in various populous sections will be considered, and an effort put forth to influence medical men who are interested in projects of that kind to do it according to plans that are fair to all concerned and free from the more glaring evils of clinic work. This committee also takes upon itself the burden of presenting a constructive plan of action for the adoption of associations as a guide to be followed by individual members in relation to the activities mentioned.

Lastly the Council receives and approves an outline of work to be done by the Bureau of Publicity, created at the last session of the Association. This bureau intends to carry on an educational campaign which has as its aim the spreading of the doctrine of good health and how to care for it. The bureau not only will arrange

for public health talks to be given before hospitals, public schools and at meetings of various organizations, but a series of health articles will be submitted to the newspapers over the state for publication.

It is hoped that aside from the question of health and how to care for it the Bureau of Publicity will broaden out its sphere of usefulness by continually placing before laymen knowledge of what constitutes a good doctor and how a good doctor is made. The people need to know that anyone who tampers with the human body must be qualified to do so by more education and training than is comprised in a common school education plus a few weeks or perhaps a few months training at a rubbing school dignified by the name of chiropractic college. The trouble is that the average layman knows absolutely nothing about the amount and character of education and training that graduates of regular medicine receive, and how little general as well as special education and training is received by the chiropractors and members of other pseudo-medical cults. The glib-talking quack often makes an impression upon the layman, even those who are recognized as being fairly intelligent, and it is this ignorance concerning qualifications together with the aid that is given by the public press that keeps alive the cultists and the faddists.

All in all, the Council and these important committees, prodded to action by a very capable and energetic president, have laid out plans of work for the year which, if carried out as intended, will redound to the advantage of the profession and to the public.

LOW GRADE MEDICAL SCHOOLS

The Middlesex College of Medicine and Surgery, located at Cambridge, Massachusetts, is, according to its own statement, sending to medical schools, state boards of medical examination, medical societies, medical journals and over five hundred newspapers, an open letter addressed to the President of the American Medical Association in which exception is taken to the American

Medical Association through its Council on Medical Education concerning the rating given the institution. The complaint avers that the last annual report refers to the Middlesex College of Medicine and Surgery in "twenty-nine lines of invective, inuendo, misrepresentation, ridicule and falsifications". The letter concludes with the threat to the effect that if anything further is published concerning past or present opinions of the school, or the publication of any classification of the college which may tend to lower its standing in the public mind or to lessen its good repute, it will be sufficient grounds for legal redress. As

a sort of camouflage, the letter refers to the restricted opportunities for medical and surgical education offered to poor boys who are compelled to earn their education and perhaps have limited educational qualifications.

It strikes us that this wail is inconsistent and unworthy of serious consideration on the part of anyone interested in maintaining high standards for our medical schools. Either the Middlesex College of Medicine and Surgery does or does not come up to a certain standard, fixed by a competent and trustworthy committee as the minimum of requirements, and prospective students, members of the medi-

cal profession, and even the public have a right to know and will know in spite of any threats of redress whether an up-to-date medical education can be given or not. We hold no brief for the council on Medical Education of the American Medical Association, but we do know that that body is composed of men of high character and standing whose motives cannot be questioned justly by anyone, and we have sufficient faith in their judgment and stamina to tell the truth to justify us in the belief that they are not going to be deviated from the path of duty as well as fairness in the position they occupy by any such threats as contained in the open letter to which attention has been called. In passing it may be noted that the Council on Medical Education of the American Medical Association has not found the Middlesex College of Medicine and Surgery up to the standard of high grade medical schools of today, and has not hesitated

Physicians of Indiana, Please Note:

SECOND CALL

(See page 397 in the December issue of this Journal)

If a part or all of the medical practice law of some other state has struck your attention forcibly please send us a copy with your recommendations.

We want to enter the next legislature with a sure step. We ask your help now—and later.

Address suggestions to

FRANK W. CREGOR, M.D.

725 Hume-Mansur Building

Indianapolis, Indiana

Chairman Committee on Public Policy and
Legislation

to make that fact known. The thing for the low grade medical schools to do is come up to the standard or get out of business. If they will not meet the requirements and put themselves on a plane with high grade institutions then they should be kicked out completely, for we have had enough of mediocre medical education obtained from mediocre medical colleges.

ADVERTISING IS THE LIFE OF QUACKERY

A committee of the New York County Medical Society is furnishing evidence to show to what extent medical fakers are spreading death and misery among aliens, and to what extent the nefarious work of medical quacks is aided by the advertisements carried in foreign language newspapers and magazines which proclaim in big letters positive cures for every disease. It was shown that there are two thousand such newspapers and magazines published in the United States, having a total circulation of over eight millions. The publishers of one of these foreign language newspapers when asked why he carried such deceptive medical advertising answered that without medical advertising the paper could not exist. One quack doctor testified that his income was between eight and ten thousand dollars a month, and that without advertising his income would be cut off. The whole scheme of these advertising fakers is to induce patients through specious promises, to come to them, then to terrify the patients into believing that they have serious maladies, and finally to exact large fees on the promise of cure.

The quacks operate on the theory that the longer the patient's sickness lasts the greater the fee. These quacks are found in large numbers not only in New York City but in all the important industrial centers of the country. Because these fakers are licensed physicians it is difficult to deal with them. However, the committee that has been investigating this subject suggests that medical men found guilty of unethical or crooked action should have their licenses revoked, and it also has recommended that a law be passed prohibiting the advertising of such men. Unquestionably the last recommendation is the one that is more apt to be effective in stamping out evil, for quackery of every description owes its existence and very life to publicity, and the minute medical fakers are deprived of the value of advertising in the public press, that minute the doom of medical fakery is pronounced.

The foreign language newspapers may be the worst offenders in carrying quack medical advertising, but they are not the only offenders, as may be noted by referring to the advertising columns of almost any of our daily and weekly papers. Occasionally a newspaper proprietor possessing a conscience can be induced to throw out objectionable medical advertising, but for the

most part newspaper owners have an eye on the almighty dollar and cannot be persuaded to cut out the income derived from a source that at the present receives little condemnation from anyone. If sufficient pressure is brought to bear a majority of the newspapers can be made to see the light. We have uplift societies of every description, many of them existing without rhyme or reason, but here is an opportunity for real service, and a society formed to suppress objectionable medical advertising would be encouraged and supported by reputable medical men and by a considerable element of the public that believes in the protection of the ignorant and the credulous from imposition by the unscrupulous.

DESERVED TRIBUTE TO MEDICAL MEN

Awarding the Nobel prize to Drs. Banting and Macleod of Toronto for their discovery of insulin is a noteworthy event in that it recognizes an advancement in the field of medicine that promises to be of inestimable value to humanity. In a sense it also is a recognition of that fine example of professional generosity which, unmindful of the pecuniary gain that might come through commercializing the discovery, gives the discovery to the world without money and without price. We are especially interested in the announcement that in appreciation of the services rendered to humanity by this discovery the Canadian government has voted Professor Banting an annuity of seven thousand five hundred dollars to enable him to proceed with his experiments, and the University of Toronto has granted him a permanent professorship carrying an additional income of six thousand dollars. Certainly this is a fine spirit to manifest toward medical men who devote their lives to experimental work without hope of other reward than the feeling of having done something worth while. When we think of this generosity on the part of a neighboring government, we are sick and ashamed of the failure on the part of the bountiful and rich United States to recognize the inestimable work that has been done for humanity by some of our own laborers in the field of scientific medicine.

FRIENDS OF MEDICAL PROGRESS

It is gratifying to know that a national lay society has been organized and incorporated in the year 1923 which gives as its reason for existence the following:

First, to encourage and aid all research and human experimentation for the advancement of medical science.

Second, to inform the public of the truth concerning the value of scientific medicine to humanity and to animals.

Third, to resist the efforts of the various persons and societies constantly urging legislation dangerous to the health and well-being of the American people.

We note that not a single medical man is named in the list of officers. The honorary president of the Association is Charles W. Eliot, president emeritus of Harvard University, and then follows a long list of vice-presidents and other officers, including some of the foremost leaders in theology, politics and business. Some ten or a dozen of the leading medical men of the United States form a medical advisory board.

In asking for the support of the public in an effort to check the growing menace to the health of the people, the president, Thomas Barbour, of the Agassiz Museum of Comparative Zoology, has sent out a letter which reads as follows:

"We are writing to ask your cooperation in an effort to check a growing menace to the health of the people.

"Within the last fifty years many societies have been organized to prevent the advancement of medical science by experimental methods, to break down the bulwarks of preventive medicine, and to substitute for the scientific treatment of disease various forms of pseudo-science and quackery. We are in a position to know that these organizations have reached the danger point. It must be fully understood that if this anti-medical program should succeed, the hands of the doctors would be tied and no further progress in experimental medicine could be expected. No reliable insulin would be available for diabetics, no antitoxin would be possible for diphtheria or lockjaw, no vaccine could be procured to protect the country against smallpox, and it would be utterly impossible to test such essential drugs as ergot, pituitrin and digitalis.

"With a view, therefore, to resisting the efforts of these societies there has been organized and incorporated a National lay society "Friends of Medical Progress." This organization will undertake to inform the public of the truth concerning the value of scientific medicine to humanity and to animals, and will oppose legislation dangerous to public health. By so doing it will perform a highly important function, hitherto assumed with difficulty, as a civic duty, by the medical profession.

"The society hopes to extend its influence throughout the United States. How far it will be able to do this depends upon the response of the public. We ask you to co-operate with us."

It is well that the public, the one to profit most by the advancement of medical science, is to be aroused to the danger that threatens from the irrational and inconsistent work of the anti-vivisectionists, anti-vaccinationists and various other "antis" opposed to medical science that have been poisoning the minds of the people through the propaganda that unless controverted is very apt to be accepted by the credulous. It is a hopeful sign of the times when a representative body of lay persons are interested in spreading information concerning work on the part of medical men that has been of inestimable service in reducing morbidity and saving human lives.

EDITORIAL NOTES

DEAR DOCTOR:

THE JOURNAL and the Cooperative Medical Advertising Bureau of Chicago maintain a Service Department to answer inquiries from you about pharmaceuticals, surgical instruments and other manufactured products, such as soaps, clothing, automobiles, etc., which you may need in your home, office, sanitarium or hospital.

We invite and urge you to use this Service.

It is absolutely FREE to you.

The Cooperative Bureau is equipped with catalogues and price lists of manufacturers, and can supply you information by return mail.

Perhaps you want a certain kind of instrument which is not advertised in THE JOURNAL, and do not know where to secure it; or do not know where to obtain some automobile supplies you need. This Service Bureau will give you the information.

Whenever possible, the goods will be advertised in our pages; but if they are not, we urge you to ask THE JOURNAL about them, or write direct to the Cooperative Medical Advertising Bureau, 535 N. Dearborn St., Chicago, Illinois.

We want THE JOURNAL to serve YOU.

WE need December numbers of THE JOURNAL for our files. It will be appreciated if any of our readers who do not keep files of our JOURNAL will send in their December numbers.

THIS is the last month for the payment of medical association dues without becoming delinquent. Pay your dues now so that your name will not be placed on the delinquent list February first.

ANYWAY our State Medical Association seems to be starting the new year right by a change of policy which promises increased activity on the part of various functions of the Association. A very energetic president helps to push the movement.

IN accordance with the action of the House of Delegates at the last session of the Association, we are using the title M. D. instead of Dr. in our professional directory. The title Doctor is used by so many tinkers that it seems quite appropriate to distinguish members of the medical profession by the title they are privileged exclusively to use.

THE Indiana eye, ear, nose and throat specialists will be pleased to learn that after considerable controversy the date for the 1924 session of the American Academy of Ophthalmology and Otolaryngology has been fixed for the week of September 15, thus not conflicting with the annual session of the Indiana State Medical Association, which will be held the latter part of the following week.

"In time of peace prepare for war!" In keeping with this thought Surgeon-General Ireland has asked for an enrollment of all eligible men of the medical profession in the medical section of the officers' reserve corps. His letter concerning the matter, with the names of the committee appointed to represent the Indiana State Medical Association, appears in the Correspondence Department of this number of THE JOURNAL.

THE Associated Press reports from Italy the following:

Gabriele d'Annunzio is laid up with a severe attack of tonsillitis. His illness is due to exposure, as he insisted on remaining in his garden here to write a poem while rain was falling and a terrific wind blowing. Members

of his household urged d'Annunzio to take shelter from the elements, but the poet replied:

"I must hear the sound of the waves, the whistle of the wind and the fall of the raindrops. To write one must be next to nature."

Now that the time and place for the next Republican convention has been fixed, and Chicago has been eliminated, it has been possible to arrange for the coming session of the American Medical Association, which has been fixed for June 9 to 13, 1924. All of the meetings as well as the various exhibits will be held on the Chicago Municipal Pier. Placing all of the activities of the Association under one roof is advantageous.

THE Knox County Medical Society, by a unanimous vote, has decided to use its influence, individually and collectively, against candidates for office, irrespective of political affiliation, who are known to be unfriendly to the medical profession. If every county medical society in Indiana would take similar action and then conscientiously live up to the promise, we could get somewhere in our attempts to secure beneficial medical legislation.

IN the December number of *THE JOURNAL*, in an article entitled *Medical South America*, by Dr. F. W. Foxworthy, attention is called to the practice of South American surgeons to advertise in the lay press, and a clipping from a daily paper is reproduced in which occurs the advertisement of a surgeon who makes public the fact that he is a Fellow of the American College of Surgeons. Dr. Foxworthy well says, "What would happen to any member of the North American medical profession who did likewise?"

IN the advertising pages of this number of *THE JOURNAL* will be found an announcement concerning the eighth annual clinical week of the American Congress of Internal Medicine, which will be held in St. Louis on February 18 to 23, inclusive. As the announcement well says, "This occasion affords an excellent opportunity for improvement to those persons who are interested in the progress and practice of scientific medicine. The session is comprised almost entirely of clinical and laboratory exercises and demonstrations in the hospitals and teaching institutions of St. Louis, by men of eminence and attainment."

TALK about the scraps and the differences of opinion among medical men, it is a mere summer zephyr compared to the storm that is brewing in the ecclesiastical world. The fight among the preachers who are aligning themselves in two camps, the modernists and the fundamentalists, is getting to be a little tiresome to the onlooker. Really, so far as the effects of the Christian religion go, what does it matter whether one believes in evolution, or the virginity of Mary, or

not? After all, isn't true religion merely right thinking and right acting, and why should one be bothered with dogma in his efforts to live according to the teachings and the life of the Lowly Nazarene?

THE New Jersey mosquito long has been the subject of jest, but the fact that the New Jersey mosquito may be a carrier of disease, to say nothing of otherwise being a physical torment to human beings, is no joke. This is recognized by the fact that the legislature of New Jersey will be asked to appropriate one million dollars to complete the work of stamping out the mosquito in the undrained salt marshes. In this work of exterminating the mosquito over one hundred thousand acres of salt marshes already have been drained, and it is hoped that with the additional appropriation asked the balance of the mosquito breeding areas may be drained. The work that is being done in New Jersey is an example that well can be followed by other populous localities where mosquitoes are a menace.

A COUNTY medical society secretary advises us that two members of his society have refused to pay the dues for 1924 because of the increase voted at the Terre Haute session. Perhaps medical societies are better off without members who are so narrow minded as to object to the dues asked of them for this year. Really a doctor who objects to paying his medical association dues, even though they were three times what are now asked, ought to hang his head in shame, for he marks himself as both unprogressive and selfish. We feel certain that the State Association will lose few members as a result of the increase in dues, and those that it does lose are perhaps no credit to the Association anyway.

THE Better Business Commission of Toledo, Ohio, has joined forces with the medical licensing board of the state in an attempt to stamp out medical quackery of every description, and a special effort is put forth to put out of business chiropractors and others who are not licensed to practice medicine. Why can't we get Better Business Bureaus and civic organizations of every kind here in this state to help in suppressing quackery in Indiana? We never will get anywhere until the public recognizes what a heavy penalty is paid for delinquency in wiping out incompetency and inefficiency in caring for the sick and afflicted, and the best way to get the public interested is through business men. Their united action, through Better Business Bureaus, and clubs like Rotary, Kiwanis, Lions and Optimists, can be obtained if the proper effort is put forth.

A GREAT work was accomplished when the medical colleges of this country were classified and

efforts put forth which finally resulted in the weeding out of many inferior schools. An effort now is being put forth to classify the schools giving postgraduate courses, and it is hoped that the final result will be the elimination of so-called medical schools that give certificates or diplomas for short and superficial courses which on the face presumably testify that the owner of such certificates is qualified to practice a specialty. As a matter of fact the man who holds himself out as a specialist in any branch of medical practice should have had a systematic course of study and training in his chosen field, and such a course cannot be considered as adequate if comprised of a few weeks' or even a few months' attendance at any medical school, no matter how highly such medical school may be rated.

THE *chiroquacktors* for the most part are drawn from the uneducated class of people, and not a few of them have been mechanics, janitors, hucksters and day laborers of various sorts. They solicit business by newspaper advertising and in various other publicity ways, but for real nerve we pass credit on to the chiropractic disciple who solicited business *from a reputable medical man*. The letter, written in long hand, and now in our possession, is herewith reproduced:

dear Sir: While I Was in W—— yesterday I had a gentleman to tell me that your Wife Was in bad shape and he beleaved that I could help her if you Would let Me give her a few chairpractic adjustments. he said it Was nervusness and that is rite in my line of work, now, if you will let Me, I think I can releave the presure from that Nerve and she Will get all right if you want to see Me I will be at the ——hotell Every afternoon from two to fore: I can soon tell you if I can help her or not.

yours Truly,

Chairopactor.

As we understand it the *chiroquacktors* use a table in making adjustments. Perhaps a new system is becoming prominent and chairs instead of tables are used for the adjustments, and hence the term "chairopactor". Anyway, the medical man whose wife is suffering from nervousness should not be discouraged, for the "chiropractor" offers hope.

WE are supporting a Bureau of Publicity which primarily is intended to educate the public concerning health and how to care for it, and what an educated and well trained medical profession is trying to do to accomplish results for the public. Every doctor is interested in this work. Why not help it along by paying for one or more subscriptions to *Hygeia*, the wonderful lay health journal published by the American Medical Association. Keep the current copy on the table in your waiting room, and, better still, send *Hygeia* to a number of people who ought to have it. If you can't do this, then try to get your patients and others to subscribe for *Hygeia*. What helps them will help you, for they need education as

to what you are trying to do for them and they will be all the better patients for the knowledge that they will obtain by reading the periodical in question.

HERE'S a new one. A mail order dealer in talking machines has adopted a method of determining credit by asking each prospective customer for the name of his family physician as reference. If the name is given without hesitation it is concluded that the doctor's bills are paid and, therefore, the credit is good, inasmuch as most people pay doctors last and if they don't owe the doctor they probably don't owe anyone else. The only improvement that we can suggest is that the family physician be asked to state whether the prospective customer owes him or not. It doesn't look very well for any person to be buying talking machines, automobiles and other luxuries if he owes his doctor.

If this method of determining credit were generally followed it probably would redound to the credit of the doctor inasmuch as people would make more of an effort to pay their doctors in order to maintain credit elsewhere.

WE always have maintained that x-ray therapy should be employed with much discretion and with a thorough understanding of its limitations and dangers. Concerning this matter it would be well for x-ray operators to read the paper by Warn and Whippel, entitled "Roentgen-ray Intoxication" which appeared in the *Journal of the A. M. A.* of November 17, 1923, in which it is pointed out that arrhythmia doses, or large doses given over the abdomen or intestinal areas, may cause injuries to the sensitive intestinal epithelium. In fact, the test on animals showed that the intestine can be so injured by the roentgen ray as to produce ulcers that are not less chronic than the familiar skin lesions. This should be a warning to the roentgenologist who contemplates radio-therapy of abdominal areas, and it definitely shows that the indiscriminate use of the x-rays common among many physicians who own x-ray machines and are not fully acquainted with their potentialities should be discouraged.

AGAIN permit us to announce that we shall appreciate receiving from our readers items of news, also marked copies of newspapers containing matters of interest to physicians. We shall be glad to know the name of the sender in every instance. Anonymous contributions either for publication, for information, or in the way of criticism, are consigned to the wastebasket. Only cowards resort to anonymous communications. We prefer to publish the name of the writer when letters appear in the correspondence department, though we recognize the fact that occasionally when the name of the writer of a letter is known to the editor there may be valid reasons for not publishing the

name in connection with the correspondence. Constructive criticism along any line is appropriate, and we see no reason why critics should object to sponsoring openly their criticisms, and this is particularly true when it comes to the discussions concerning the various contemplated or existing enterprises under State control, such as the Long Memorial Hospital, the Riley Memorial Hospital, the psychiatric hospital, State Board of Health and the Boards having to do with public health and medical licensure.

NEWSPAPERS report that a man in Columbus, Indiana, is suing a hospital for his gall stone, the claim being put forth that a man is entitled to his gall stone even though a surgeon removes it with or without his consent. We know of a case where a man sued a doctor for a leg that had been removed and carelessly misplaced, the claim being made that the leg should have a respectable burial.

If the court should decide for the claimants in such cases we may expect the adoption of rules requiring that tonsils, appendices, and all other pieces of tissue removed in surgical operations must be preserved carefully and returned to their former owners. The matter may go far enough so that barbers will have to save every bit of hair and return it to the patron. Certainly this is an odd world and it takes all kinds of people to make it a real interesting place in which to live. Fortunately the courts usually settle freak cases in an entirely consistent manner, though occasionally they also do some freak things, and we shall be interested to know how the suit in Columbus, Indiana, turns out.

THE public press has created somewhat of a sensation by giving publicity to the fact that there are diploma mills in this country, and that there are some fifteen thousand persons practicing medicine in the United States under bogus diplomas.

Evidently there is something rotten in the management of some of the boards of medical registration and examination or diplomas other than those from high-grade medical schools would not be recognized. Several people have made inquiries as to whether there are any doctors practicing in the State of Indiana under bogus diplomas and perhaps it is entirely appropriate to ask our own State Board of Medical Examination and Registration to make an announcement through the press of the state concerning this subject. If there are persons in Indiana practicing under bogus diplomas the Board should announce to the public that a complete investigation is under way and proceedings will be instituted immediately against the holders of such diplomas. Of course, we recognize the fact that there are a large number of unlicensed persons practicing medicine in Indiana without let or hindrance, but the Board should

feel embarrassed if it has recognized any bogus diplomas.

WE desire to remind our newly created Bureau of Publicity that one of the things expected of it by the members of the Association who are paying the bills is that the laymen of our state shall have impressed upon them from time to time a comprehensive knowledge of what constitutes a good doctor and how a good doctor is created. As a matter of fact the Bureau will have some difficulty in avoiding duplication of work that has been done or should be done by other agencies. For instance, the Indiana State Board of Health ought to be more active in educating the public concerning health and how to care for it. There are other agencies that are attempting in a desultory way to spread information concerning disease, its prevention and cure. So far as we know there is not one of these agencies that has a word to say concerning the amount or character of education required to make a trustworthy doctor, and that is the kind of information that the public ought to have in order to choose a doctor wisely and place the proper estimate upon the services of medical pretenders of every stripe. Such information also is necessary in order to make the public and in turn the legislators see the necessity and consistency of having restrictive laws governing the practice of medicine.

It required a grand jury in Connecticut to unmask a number of quack doctors who obtained licenses on diplomas issued by fake medical colleges, or secured otherwise by fraud, and the investigation seems to show that the state board which grants medical licensure in Connecticut either had knowledge of the frauds being perpetrated, or was criminally lax in enforcing the legal requirements. At all events the public is aroused concerning the dangers attendant upon promiscuous practice of medicine by those who are not educated and adequately trained in the science and art of medicine. All of which reminds us that when the public awakes to the dangers that threaten in connection with the tolerance now permitted in allowing medical fakers of every description, including the members of pseudo-medical cults, to practice upon the sick and afflicted without let or hindrance, we will get some place in our efforts to protect the people from ignorance and incompetency. The public needs education as to what constitutes a real doctor. It may require such an upheaval as they had in Connecticut to bring out the facts, but the time is coming when an enlightened public will demand competency in its medical advisors. In the meantime the regular medical profession should continue to preach the doctrine of education and training as an essential requirement for all of those who are given the legal right to treat diseases or abnormalities of the human body.

SPEAKING of politics, we are reminded that in a recent number of *Collier's* there is an open letter which expresses the sentiments of the average voter. No matter how bad the man we are thinking of voting for is, we can be pretty sure the other fellow is worse, and when our congressman, whomever it may be, goes back to Washington, we are not very enthusiastic over the fact that he is going to help run the Ship of State for we know that he is going to join in the old game of playing politics. It fills his dreams by night and it colors his conduct during the day. The trouble with the average congressman is that he hasn't any nerve. He thinks about his position and he is in constant fear that he will do something unpopular and lose his job. He hasn't the faintest conception of the meaning of duty of office. We ought to select for congress a man of sound judgment and undoubted honesty. If we did that, he would not, like a slave, vote with the majority regardless of the merits of the measure. Few congressmen vote according to the dictates of their consciences, but instead they seem to enjoy being pussy-footers and straddling every important question. People are getting sick and even nauseated with too much politics. As the correspondent of *Collier's* says, "What we want from our public men is less bunk and more sincerity, less politics and more service, less pussy-footing and more courage."

WITH "diploma mill" scandals arousing the medical profession in Missouri and Connecticut where, it has been charged, a man can get a license to practice medicine for a song, the Ohio State Medical Board has taken precaution against such a thing occurring in Ohio, according to Dr. Herbert M. Platter, secretary of the board.

Applicants for the medical examination in Ohio must present diplomas from a recognized medical college. No medical college is recognized by Ohio unless it meets the requirements of Class A or Class B schools as set up by the national association of medical instructors, examiners, and government officials.

In addition to the acceptable diploma, Ohio applicants must send in photographs endorsed by two physicians known to the Medical Board when they ask to take the examination.

At taking the examination, the applicant must submit another photograph of himself with his paper. This is compared with the original and also with the photographs submitted with the application.

This prevents substitutes from taking the examination for another person.

Ohio will not accept a physician on a transfer from another state unless that physician was a Class A or Class B school man when he took his examination in the other state. His examination record is gone into by the Ohio Board.—*Toledo News-Bee*.

THE Fort Wayne Board of Health is investigating an outbreak of diphtheria, the spread of which is said to be due to the action of a Christian Science family in calling a healer of their faith to attend some sick children suffering with diphtheria. One of the children died. Status lymphaticus was given on the death certificate as the cause of death, and the child was taken to a nearby town for burial. The neighbors, knowing that the children had been suffering with sore throats, complained, an investigation followed, and the discovery was made that the remaining children of the family were suffering with diphtheria.

Aside from the criminal negligence, which perhaps is entirely responsible for the death of a child, the question of protecting the public from the dangers of such an unnecessary occurrence comes to the forefront. It is bad enough to subject helpless children to the fanatical maltreatment forced upon them by their parents, resulting in the loss of life, but it is still worse to permit such conduct to jeopardize the health of the community. It may be argued that a person of legal age has a right to use whatever treatment he or she may choose, but laws should be enforced to protect helpless children who are suffering from disease, just as they are protected from any other abuse, and certainly the community should be protected from the spread of contagion that has its origin in a family such as described, when the members thereof are permitted free communication with others.

WARNING to motorists that, with the coming of winter, it is imperative to guard against the deadly hazard which may be encountered when automobile engines are permitted to run in closed garages, is given by the Department of the Interior. Numerous articles have been published at various times by the Bureau of Mines and other agencies in which great stress was laid on the extremely poisonous properties of the gas, carbon monoxide, which is one of the products formed when gasoline is burned in an automobile engine. In spite of these repeated warnings, cases of asphyxiation continue to be reported in the daily press when the advent of cool weather causes the closing of garage doors and windows in order to retain heat.

Four-tenths of one percent of carbon monoxide, that is, four parts per 1,000, will kill an ordinary man in one hour, and a higher concentration will prove fatal in a much shorter time. Automobile tests made at the Pittsburgh experiment station of the Bureau of Mines show that the amount of carbon monoxide present in the exhaust gases varies from 2.4 to 9.5 percent and, consequently that the air in a closed garage will reach the danger point in a very few minutes.

It is a common practice among motorists on cold days to allow the engine to idle for five or ten minutes before leaving the garage, in order

to warm up the oil and cooling water. This is an extremely dangerous practice and cases are reported frequently where the driver is found dead at the wheel. If it is desired to warm up the engine, all windows and doors should be opened, or better still the car should be driven into the open air where the toxic exhaust gases are quickly dissipated.

A READER of THE JOURNAL, probably a strong partisan though he thinks he is not, asks if we are not guilty of disseminating political propaganda by publishing in a recent number of THE JOURNAL editorial notes concerning the gubernatorial situation and our present unsatisfactory postal service. We deny the truth of the accusation. The medical men of Indiana have a right to know and should know when a gubernatorial candidate stands for and will uphold the principles and policies supported by the majority of medical men of the state. Likewise, if the post office authorities are getting credit for economy at the expense of service, and the readers of THE JOURNAL are suffering from the inefficient service, there is no reason why criticism should be withheld, no matter whether it reflects the political situation or not.

THE JOURNAL never has and never will under its present editorship discuss any phase of politics from a partisan standpoint. It will, however, discuss the phases of any political questions which are of interest to the medical profession as a profession. THE JOURNAL aims to aid and support all enterprises that should have aid and support from reputable medical men, to expose hypocrisy and sham in medical teaching and practice, and without fear or favor defend right acting and right thinking on the part of medical men.

The editor of THE JOURNAL welcomes constructive criticism and friendly suggestions as to how THE JOURNAL may be made better. He may be guilty of mistakes and errors in judgment, but at all times he will try conscientiously to uphold and defend the best traditions of the medical profession.

If we are to rewrite our medical law it is highly desirable that the practice of medicine be defined in such clear and unmistakable language as to leave no reason for legal dispute. It is not necessary for one to prescribe medicine or give drugs in order to practice medicine, and that fact should be brought out clearly in a medical law. We rather like the definition embodied in the medical law of New York, which is as follows:

"A person practices medicine within the meaning of this article, except as hereinafter stated, who holds himself out as being able to diagnose, treat, operate, or prescribe for any human disease, pain, injury, deformity or physical condition, and who shall either offer or undertake, by any means or method, to diagnose, treat, operate, or prescribe for any human disease, pain, injury, deformity or physical condition."

According to this provision anyone who holds

himself out as being able to make diagnoses of physical ailments and to cure the same, unless he holds a license to practice medicine, is violating the law; and all such violators, regardless of their method of violation, should be prosecuted as such when sufficient evidence has been secured to convict them.

New York is attempting to amend the law concerning the collecting of evidence, and it is suggested, and the suggestion is well worth considering for Indiana, that the body charged with issuing the licenses be empowered to collect evidence through properly appointed inspectors, and when such body has secured evidence it shall be presented to the attorney general with the request that the violator be prosecuted promptly. If the case be a civil one the attorney general should conduct the prosecution. If it be criminal, the district attorney should prosecute and have the assistance of the attorney general's office.

A LAYMAN has given us a good story which is as follows:

A prominent doctor said to his nephritic patient "You must get rid of every focus of infection in your body, and one of the first things to be done is to get all of your teeth out." The patient, fully appreciating the chance for a practical joke, replied, "Well, Doc, how soon after I get my teeth out do you think I will notice a change for the better?" To which the doctor answered, "Oh, right away you will begin to notice some improvement." With that the patient extracted a full set of upper and lower false teeth from his mouth!

This reminds us of a story told concerning a pompous and opinionated doctor who without a great deal of medical knowledge was never at a loss for some kind of a diagnosis. One day he was called to see a child who was suffering from colic, presumably caused by too free indulgence in huckleberries which the child had obtained surreptitiously. While the child was crying and writhing in pain, the doctor noticed that the tongue was exceedingly black, and not wishing to fail in making a very prompt diagnosis of the trouble he said, "This is the worst case of black tongue that I ever saw."

Another doctor, noted for his optimism, to which much of his success could be attributed, was consulted by a friend who complained of feeling terribly ill and desiring immediate help to make him feel better. After an examination the doctor dispensed some medicine with the injunction, "Take four doses of this medicine during the next twenty-four hours and you will be relieved." The next day the patient met the doctor and upon admitting that he was practically well was told by the doctor, "I knew you would be better if you took that medicine I gave you," and was met with the reply, "Well, Doc, as a matter of fact I lost that bloomin' medicine and never took a single dose of it."

All of which reminds us that there is a certain amount of psychology entering into the successful practice of medicine, but it is a good plan to combine with it some real scientific knowledge and consistency.

COUNTY medical society secretaries sometimes need suggestions as to how to get doctors interested in their county medical societies. The secretary of the Madison County Medical Society has sent out the following:

Dear Doctor:

Thanks for the lemon. Now let us all have a lemonade. But if you have one it is up to you to make it. The Madison County Medical Society is your own society. You are the sole means of making it a success or a failure. If it has been a failure in any way you alone are responsible. Paying your dues without taking any personal interest won't make anything go. What you get out of any investment is directly in proportion to what you put into it.

And so: As your new secretary, I am going to pass the buck, not to any higher up or lower down, but to every man in the society. I can get good men to come here and give you papers and clinics, if they can be honored by a respectable attendance of our members. But if the society is really dead, the funeral will be postponed temporarily until I have had the fun of spending all the money the society is supposed to possess.

I can wish all of you a prosperous new year, even though it is a fact that some of my own good friends call you in when they get sick and need a doctor. Don't forget that your dues are now due. Send me eight dollars, and if you don't get your money's worth this year it will be your fault. And don't try to pull that "too busy" stuff on me as an excuse for your absence.

That is all I can put on this sheet of paper. Watch for the next blue envelope. Soon.

We are interested in knowing what the next envelope will contain, but anyway we wish to remind secretaries of other medical societies that the success or failure of a medical society is largely due to its secretary. No secretary can "pass the buck" in the strict sense of the term, because it is he who must see that each meeting has a good program, that every member of the society knows about the meeting, and that his own interest and enthusiasm is carried to everyone else. Many societies are dead because they have dead secretaries, or they are dying because they have dying secretaries. Every live society in the state has a live secretary, and the more punch and snap there is to the secretary the more such qualities are portrayed in the meetings of the societies.

DEATHS

A. M. RUPERT, M.D., of Attica, died December 19. Dr. Rupert was sixty-nine years of age. He was a graduate of the Medical College of Ohio, Cincinnati, in 1877.

WILMER CHRISTIAN, M.D., of Indianapolis, died December 6 at the age of fifty-two years. Dr. Christian graduated from the Medical College of Indiana, Indianapolis, in 1897.

J. D. NUSBAUM, M.D., of Fort Wayne, died in the Deaconess Hospital at Indianapolis, December 2, at the age of forty years. Dr. Nusbaum was a graduate of the Medical College of Indiana, Indianapolis, in 1905.

FRED A. METTS, M.D., of Bluffton, died January 1, aged 46 years. Dr. Metts graduated from the Fort Wayne College of Medicine in 1898. He was a member of the Wells County Medical Society, the Indiana State Medical Association and a Fellow of the American Medical Association.

OLIVER P. GRAHAM, M.D., of Jeffersonville, died December 12 at the age of fifty-seven years. Dr. Graham graduated from the University of Louisville, Medical Department, in 1890. He was a member of the American Medical Association, the Indiana State Medical Association and the Clark County Medical Society.

W. E. PUTNAM, M.D., of Whiting, died November 20 at the age of sixty-three years. He was a graduate of Rush Medical College, Chicago, in 1889. Dr. Putnam was a Fellow of the American Medical Association, a member of the Indiana State Medical Association and a member of the Lake County Medical Society.

E. W. BURRIS, M.D., of Indianapolis, was buried November 22, 1923. Dr. Burris was forty-nine years of age. He was a graduate of the Medical College of Indiana, Indianapolis. Dr. Burris was a member of the American Medical Association, the Indiana State Medical Association and the Marion County Medical Society.

THOMAS J. CREEL, M.D., of Angola, died December 19, aged fifty-five years. He graduated from the Rush Medical College in 1893. Dr. Creel was a Fellow of the American Medical Association, a member of the Indiana State Medical Association and a member of the Steuben County Medical Society.

WALTER M. HUNTER, M.D., of Petersburg, died December 1, at the age of seventy-two years. Dr. Hunter was a graduate of the Medical College of Indiana, Indianapolis, in 1891. He was a member of the American Medical Association, the Indiana State Medical Association and the Pike County Medical Society.

E. E. HODGIN, M.D., of Indianapolis, died December 4, at the age of fifty-two years. Dr. Hodgin was president of the Indianapolis City Board of Health. He was a graduate of the Physio-Medical College of Indiana, Indianapolis, in 1896, and of the Medical College of Indiana, Indianapolis, in 1901. Dr. Hodgin was a member of the American Medical Association, the

Indiana State Medical Association and the Marion County Medical Society.

G. F. EDENHARTER, M.D., of Indianapolis, died December 6 at the age of sixty-six years. He graduated from the Medical College of Indiana, Indianapolis, in 1886. Dr. Edenharter was a Fellow of the American Medical Association, a member of the Indiana State Medical Association and the Marion County Medical Society.

JOSEPH V. KENTLING, M.D., of Bloomington, died December 4, at the age of forty-six years. Dr. Kentling graduated from the University of Louisville, Medical Department, in 1900. He was a Fellow of the American Medical Association, a member of the Monroe County Medical Society and a member of the Indiana State Medical Association.

NEWS NOTES AND PERSONALS

Anything in the line of physicians' supplies or equipment may be obtained from advertisers in THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION. Patronize these advertisers, for it means a continuance of their advertising patronage, and the latter means a larger and better Journal for you.

MOLLIE E. THOMPSON, wife of Dr. W. H. Thompson, of Winamac, died December 9, 1923.

THE Oconomowoc Health Resort has announced the opening of a new building for occupational therapy.

AFTER January 1 Dr. Dudley A. Pfaff will be associated with his father, Dr. O. G. Pfaff, of Indianapolis.

DR. JOHN RICHARD PORTER, of Lebanon, and Miss Ethel Johnson, of Terre Haute, were married November 17.

DR. VIRGIL H. MOON has announced the opening of the Indiana Laboratory for Pathology at 623 Hume-Mansur Building, Indianapolis.

THE annual meeting of the American Association for the Study of Goiter will be held at Bloomington, Illinois, January 23, 24 and 25, 1924.

THE Indianapolis Medical Society held a meeting December 18. A paper on "Anesthesia in the Tuberculous" was read by Dr. J. Rilus Eastman.

THE Fountain-Warren Medical Society held a meeting in Attica on December 13. Dr. O. H. Christ, of Danville, presented a paper on "Presentation in Labor".

DR. FREEMAN R. BANNON, of Kokomo, and Miss Hazel Stifel were married at the home of

the bride's parents in Cambridge City, Indiana, on Thanksgiving Day.

PRESIDENT COOLIDGE has accepted the honorary presidency of the Gorgas Memorial Institute of Tropical and Preventive Medicine, for which the cornerstone has been laid at Panama City.

DR. FLORENCE E. KRAKER, of Philadelphia, who has just returned from a year in China, has been appointed specialist in maternal hygiene in the Children's Bureau of the United States Department of Labor.

AT a meeting of the Wells County Medical Society held at Bluffton, December 6, the following officers were elected: President, Dr. F. M. Dickason; vice-president, Dr. F. H. Mead; secretary-treasurer, Dr. H. D. Brickley.

DR. MAX A. BAHR, for twenty-five years associated with the management of the Central Indiana Hospital for the Insane, has been made superintendent of that institution, succeeding Dr. George F. Edenharter, who died recently.

THE Cass County Medical Society held a meeting at Logansport, December 13, and the following officers were elected for 1924: President, Dr. A. L. Palmer; vice-president, Dr. H. C. Johnson; secretary-treasurer, Dr. G. D. Miller.

THE Northeastern Indiana Academy of Medicine held its meeting at Gawthrop Inn, Kendallville, December 6. Dr. Joseph B. DeLee, of Chicago, presented a paper on "Commonest Causes of Puerperal Mortality and How to Reduce Both Mortality and Morbidity."

THE Clinton County Medical Society held a meeting at Frankfort December 6. The following officers were elected for 1924: Dr. J. A. Vankirk, of Frankfort, president; Dr. J. D. Price, of Rossville, vice-president; and Dr. F. A. Beardsley, of Frankfort, secretary-treasurer.

THE Goshen Medical Society held a meeting December 27, 1923. The following officers were elected: President, Dr. H. E. VanderBogart; vice-president, Dr. A. S. Hollingsworth; secretary, Dr. L. H. Simmons; treasurer, Dr. D. L. Miller; librarian, Dr. A. C. Yoder.

THE Tri-County Medical Society held its meeting at Columbus, December 11. Following a banquet, Dr. John Green, of North Vernon, presented a paper on "Tuberculosis" and Dr. Willis D. Gatch, of Indianapolis, presented a paper on "Thyroid".

THE annual banquet of the Allen County Medical Society was held December 11. Officers were

elected for 1924. They are as follows: President, Dr. John H. Gilpin; vice-president, Dr. W. W. Carey; secretary, Dr. D. D. Johnston; and treasurer, Dr. H. E. Glock.

THE eighth annual meeting of the American Congress on Internal Medicine will be held in St. Louis, February 18 to 24, 1924. The Hotel Chase has been selected as headquarters for the session. Any information desired may be obtained by addressing Dr. Frank Smithies, Secretary-General, 1002 North Dearborn Street, Chicago, Illinois.

THE National Health Council has arranged with the Funk & Wagnalls Company for the publication of the National Health Series, which will contain twenty books of about 18,000 words each, written by the leading health authorities of the country. The series of twenty will be six dollars, or thirty cents each. They are to be issued in sets of five.

IN addition to the articles already enumerated, the following have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association:

Cutter Laboratory:

Anti-Anthrax Serum for Human Use-Cutter.

Diphtheria Toxin-Antitoxin Mixture-Cutter.

Diphtheria Toxin for the Schick Test-Cutter.

Rabies Vaccine-Pasteur (Cutter).

Tetanus Antitoxin for Human Use (Concentrated)-Cutter.

E. R. Squibb & Sons:

Diphtheria Toxin-Antitoxin, 0.1L+.

Winthrop Chemical Company:

Elixir of Veronal.

SOCIETIES AND INSTITUTIONS

THE COUNCIL

The regular mid-winter meeting of the Council of the Indiana State Medical Association convened at 12:45 p. m., Friday, December 28, 1923, at the Severin Hotel, Indianapolis, Chairman E. M. Shanklin presiding.

Roll call showed the following present: Drs. E. M. Shanklin, J. H. Weinstein, Joseph Smadel, C. E. Gillespie, O. T. Scamahorn, B. VanSweringen, C. N. Howard, W. R. Moffitt, Walter Leach, G. H. Smith, E. M. Conrad, President S. E. Earp, Editor of THE JOURNAL, Albert E. Bulson, Jr., and Secretary Charles N. Combs.

Dr. E. M. Shanklin, of Hammond, was unanimously re-elected as chairman of the Council.

The Committee on Civic and Industrial Relationship, having had a meeting just prior to the meeting of the Council, made a report which was discussed by Dr. George D. Miller, chairman, and members H. W. McDonald and F. S. Crockett. The report outlined the activities which this Committee pledged themselves to undertake for the coming year, and was accepted by the Council.

The Bureau of Publicity was present, composed of Drs. W. N. Wishard, chairman, Cregor and Ross. The following report was presented to the Council:

Since the last meeting of the Indiana State Medical Association at Terre Haute, the Bureau has been exert-

ing every effort to obtain an Executive Secretary who possessed the qualifications which seem desirable for an official filling that important position. Unavoidable delays have occurred, but have seemed inevitable because of the necessity of proceeding carefully and preparing wisely the initial details of the work. Altogether the Committee has had under consideration five different men. After full investigation, we have selected Dr. James H. Stygall, who has been since 1921 the Medical Director of the Indiana Tuberculosis Association. Dr. Stygall is 36 years old, graduate of the University of Buffalo, N. Y. (1910) and after his year of internship in the Erie County Hospital (N. Y.) engaged in general practice five years and was then connected with the Trudeau Tuberculosis Sanatorium for almost a year, at which time he entered the army. During the year and a half he was in the army, he was assigned to tuberculosis work in the Army General Hospital. After leaving the army he was superintendent of the Cattaraugus County (N. Y.) Tuberculosis Hospital for a year and a half. While holding the latter position, he was invited by the Indiana State Tuberculosis Association to come to Indianapolis and act as Medical Director for that organization. He has had extensive experience in conducting tuberculosis clinics through the County Tuberculosis Associations and in co-operation with county medical societies over the State. His experience and his personality seem to fit him especially for the work as Executive Secretary of the Bureau of Publicity.

We have employed him on half time work with the understanding that he will pay half the office rent and the Association will furnish a stenographer and equip the office so far as its official needs are concerned, and that Dr. Stygall be permitted to engage in private tuberculosis work for half the time.

His salary is to be \$2,000.00 per year and traveling expenses when engaged in the work of the Bureau.

An office has been taken in the Hume-Mansur Building, and the expense involved in addition to the salary of the Executive Secretary and the office rent is that of a stenographer, the traveling expenses of the Executive Secretary, speakers, and the cost of furnishing and equipping the office and necessary expenses of stationery, postage and incidentals.

The Bureau respectfully submits the following outline of the work which it has agreed upon as at least the working basis for the publicity education which it is undertaking:

Outline of work for The Bureau of Publicity of the State Medical Association.

In order that the Bureau of Publicity may better carry on an Educational Campaign, it would be wise to co-operate with the following agencies:

- County and District Medical Societies.
- State Board of Health.
- State and National Tuberculosis Associations.
- American Society for Control of Cancer.
- Indiana University School of Medicine and University Extension Services.
- Purdue University and Extension Services.
- American Red Cross.
- American Public Health Association.
- American Society for Control of Heart Disease.
- United States Public Health Service.
- American Child Health Association.
- Public Health Nursing Association.
- Industrial Medicine.
- State and Federal Veterinarians.
- State Dental Society.
- State Board of Charities.
- State Parent-Teachers Associations.
- American Legion.
- National Association of Mental Hygiene

It would be wise to promote the formation of a Central Health Council with a representative from each of the leading state health agencies, such as, The State Board of Health, the Indiana Tuberculosis Association,

Indiana University School of Medicine, State Dental Association, State Red Cross and the University Extension Services.

The Central Health Council could meet from time to time with the Bureau of Publicity and the State Medical Society in order that the health activities of the various organizations will be co-ordinated.

Literature on public health should be prepared for press releases. The material is available from various sources such as, The American Medical Association, American Society for Control of Cancer, State and National Tuberculosis Associations, United States Public Health Service, State Board of Health and other organizations with whom we are affiliated.

Contact should be made with the Associated Press, United Press, International News Service and other agencies so that scientific facts can be kept before the public. It will release for publication material of public and professional interest with the understanding that such material shall be published only in the form the Bureau presents it for such public dissemination. The smaller county papers not reached by the press agencies should be sent mimeographed material from the state office. The various state papers such as the *Farmers' Guide*, *Indiana Farm Journal*, fraternal papers, church papers, etc., should be on the mailing list. All publicity material to be censored by the Bureau of Publicity before release.

Talks on public health should be given before various public gatherings throughout the state. These should include hospital dedications, health meetings, and meetings of various organizations including tuberculosis societies, grange, fraternal, Rotary, Kiwanis, Boy Scouts, Camp Fire Girls, teachers, schools, etc. Talking points should be prepared for the speakers and the following list includes some of the subjects which would be more popular with the public:

- The Achievements of Surgery.
- Prevention and Cure for Tuberculosis.
- Prevention and Cure of Cancer.
- Venereal Disease Problem.
- Disease Germs.
- Goitre and How to Prevent It.
- Heart Disease.
- Tonsils and Adenoids.
- Relation of Carious Teeth to Disease.
- Fresh Air and How to Use It.
- Relation of the Spine to Disease.
- Mental Hygiene.
- The Family Doctor in the Home and Community.
- Should We Have an Annual Medical Examination?

Some of these talks could be given with motion pictures and lantern slides. The Educational Secretary should arrange for the speakers and if possible the talks should be given at the annual meetings of the various organizations mentioned.

The speakers should be selected by the Bureau of Publicity and leaders in the various specialties should be chosen who have had some experience in public speaking. It is suggested that a few speakers be chosen in each district and these would be available for local gatherings. The larger gatherings, such as annual meetings, should have the best speakers.

The speakers' expenses should be defrayed wherever possible by the local organization or the organization with which he is affiliated, otherwise by the educational fund.

Notice should be kept in the *Indiana State Medical Journal* and the *Indianapolis Medical Journal* of the services available to the County Societies by the office.

The County Medical Societies should be encouraged to have more frequent meetings and speakers provided.

Better examinations, better diagnosis and less secrecy in medicine should be emphasized to secure a more sympathetic understanding by the public of the profession's purposes and work.

It is desired that the County Societies should feel that the Bureau is at their disposal and anxious to co-operate with them. It will endeavor to obtain and furnish literature and other information relative to the subjects covered in its work. It will in all proper ways endeavor to further the ethical and economic interests of the profession and will co-operate with the Committee on Public Policy and Legislation and other agencies of the state and county societies.

Respectfully submitted,

W. N. WISHARD, Chairman,
F. W. CREGOR, Secretary,
DAVID ROSS.

Dr. Wishard, in making the above report, stated that the above mentioned contract was subject to the ratification of the Council, and that the contract with Dr. Stygall was only from January 1, 1924, until the next annual session to be held at Indianapolis.

Moved by Dr. Moffitt and seconded by Dr. Howard that the Council accept the report as given and ratify the contract. A full discussion was given the motion by the councilors present, Dr. Bulson and the members of the Bureau, and motion was carried.

Since the term of office of the Bureau Publicity expires December 31, 1923, Dr. Bulson moved, seconded by several councilors, that the President re-appoint the same committee for 1924. The motion was carried, and Dr. Earp made the re-appointment at that time.

At this point, the newly appointed Educational Secretary, Dr. James H. Stygall, was introduced, and addressed the Council.

Motion was made by Dr. Weinstein that the Chairman appoint the Committee Advisory to the Bureau of Publicity for the coming year with the chair as one member. Carried.

Committee appointed, Drs. Shanklin, Earp and Bulson.

Dr. Bulson reported the tentative plan of the Program Committee for the next annual session, which contemplated the holding of a post-graduate course of instruction rather than the presentation of papers, and he asked the support and co-operation of the Council.

Dr. Shanklin introduced the following resolution, which was adopted:

"WHEREAS, For some years past the President of the Indiana State Medical Association has, under the constitution and by-laws of said Association, annually appointed a Hospital Committee, and

"WHEREAS, The work of this committee is thoroughly and competently covered by the American College of Surgeons and the American Medical Association, Therefore, be it

"RESOLVED, That the Council recommends that the House of Delegates abolish the Hospital Committee of the Indiana State Medical Association."

Dr. Smith reported the amalgamation of the Wayne-Union County Medical Societies, to be known hereafter as the Wayne-Union County Medical Society.

Dr. Howard reported concerning the situation in Marshall county, and stated that for the coming year, at least, physicians in Marshall county would join contiguous county medical societies.

Council adjourned.

CHARLES N. COMBS, Secretary.

THE INDIANA STATE BOARD OF HEALTH

There has always been a difference of opinion as to the safety afforded by check valves and gate valves where a physical connection is maintained between an industrial water supply and a water supply for public and domestic purposes. From time to time the State Board of Health has called attention to the potential danger involved in such physical connections, particularly where the industrial water supply is obtained from a doubtful source, only to be met with the argument of industrial necessity,

better fire protection, and the proposition that to eliminate such physical connections would increase fire insurance rates. The recent outbreak of typhoid fever in a small section of the city of Fort Wayne has served to call attention in a very definite way to the importance of absolutely safeguarding water supplies used for drinking purposes, and to the seriousness of physical connections with doubtful sources of supply which now exist in practically every city in the state. In view of this situation, the State Board of Health at its regular quarterly meeting in January, adopted an order requiring the elimination of all physical connections between public water supplies and industrial or other surface water supplies throughout the state of Indiana within a period of six months from January 1.

The State Board of Health also adopted an order requiring that plans and specifications for all construction work in connection with water works and public water supplies, and in connection with sewage disposal works in cities and towns throughout the state, be submitted to the Water and Sewage Department of the State Board of Health for inspection and approval before such construction work is undertaken. These are both important steps in safeguarding the water supplies of Indiana, in protecting the public health, and in the control of typhoid fever and other intestinal diseases for which contaminated water supplies and faulty methods of sewage disposal are largely responsible.

The State Board of Health has just completed the equipment of a milk laboratory by means of which an effort will be made to supervise and to safeguard, as far as possible, the milk supplies of the state of Indiana. The laboratory is equipped for a complete milk bacteriological service. Containers in which samples of milk can be sent to the laboratory will be furnished to health officers with complete instructions as to the taking of the sample and as to protecting the sample in transportation to the laboratory. It is hoped that through the service, which the milk laboratory is prepared to furnish, it will be possible to give to the various communities of the state, accurate information concerning the quality of milk being furnished, and through intelligent co-operation of health officers and the public to assure to the people of Indiana the best and safest milk supply possible.

FLOYD COUNTY MEDICAL SOCIETY

On December 15 the Floyd County Medical Society held its annual meeting at the Tavern Hotel, New Albany, Indiana. Dr. George H. Day presided at the meeting. The following members were present on roll call: Drs. J. H. Ashabranner, J. W. Baxter, J. E. Bird, Fred Bierly, G. H. Day, C. C. Funk, F. W. Hazelwood, R. W. Harris, W. J. Leach, J. Y. McCullough, W. L. Starr, P. H. Schoen, S. T. Rogers, F. T. Tyler, Wm. Winstandley, W. H. Wilcox, Harry Voyles, W. A. Hall and Wm. H. Garner, guest.

The following officers were elected: President, Dr. C. C. Funk; vice-president, Dr. F. T. Tyler; secretary-treasurer, Dr. P. H. Schoen; censors, Dr. R. W. Harris, Dr. William L. Starr and Dr. Frank H. Wilcox.

After a brief talk by the newly elected officers, the meeting adjourned.

R. H. SCHOEN, Secretary.

KNOX COUNTY MEDICAL SOCIETY

The annual meeting and banquet of the Knox County Medical Society was held at the Grand Hotel in Vincennes, Ind., December 11, 1923.

The society had as guests, the president of the Indiana State Medical Association, Dr. S. E. Earp, and Dr. Thomas Beasley, of Indianapolis. Dr. Earp gave a very interesting address on, "Medical Organization," Dr.

Beasley read a paper entitled, "Prevention of Tuberculosis," which was generally discussed by the members.

During the talk of Dr. J. N. McCoy, the members were asked to rise if they were willing to put the interest of the medical profession above party politics, and to use their influence against candidates known to be unfriendly to the medical profession, and every man in the room was on his feet immediately.

The following officers were elected: Morris Johnson, president, Vincennes; E. H. Tade, vice-president, Bicknell; Chase. E. Stone, secretary-treasurer, Vincennes; A. B. Knapp and S. A. Pratner, censors, Vincennes.

CHAS. A. STONE, Secretary.

GRANT COUNTY MEDICAL SOCIETY

At the regular meeting of the Grant County Medical Society held on December 18, the following officers were elected for the coming year: President, Dr. F. A. Priest, Marion, Ind.; vice-president, Dr. L. D. Holliday, Fairmount, Ind.; secretary-treasurer, Dr. E. O. Harrold, Marion, Ind.; member board censors, Dr. B. C. Dale, Marion, Ind.

F. A. PRIEST, Secretary.

THE RANDOLPH COUNTY MEDICAL SOCIETY

On December 13 a banquet was served to the Randolph County Medical Society at the Presbyterian church, Winchester, Indiana, by the Madonna club of that city. This was the annual banquet of the society and an effort was made to make it an unusual event. Guests representing most of the other professions and business interests of the community were invited.

Dr. S. E. Earp, president of the Indiana State Medical Association, was the speaker of the evening. He talked at length about the doctor and his difficulties, both inside and outside the profession. His attack upon medical cults and quackery was not a personal one but a plain, simple, and unquestionable attack upon their incompetency as doctors to treat the sick. He gave his interpretation of what a reputable physician's attitude should be toward the press and what he considered to be permissible information for the press. He paid a high tribute to the ministry heralding it as the physician's right-hand helper in education and in shaping public sentiment. His talk was one that the members of the publicity committee of the Indiana State Medical Association will be glad to learn was worth while and was not only spoken to physicians but to ministers, editors, professors, druggists, nurses, business men, bankers and others.

Dr. Earp complimented the society very highly for retaining its identity as a county society of the Indiana State Medical Association through the months that have recently shown such a tendency for medical society combinations. He said each county society as a community organization could accomplish much in shaping public sentiment, and that public sentiment is the power behind the throne. He advocated community meetings among the laity, particularly the women for the purpose of instructing them relative to medical legislation, public health laws, and cult propaganda. He charged the medical profession with negligence, loose and careless methods of diagnosis and treatment, and asked for careful, conscientious work among the doctors.

The society extended a vote of thanks to Dr. Earp for his splendid talk.

J. S. ROBISON, Secretary.

MUNCIE ACADEMY OF MEDICINE

A meeting of the Muncie Academy of Medicine was held on November 23rd. The meeting was called to order by President C. A. Ball. The minutes of the previous meeting were read and approved. Two communications were read from the Grant County Society in reply to the invitation from the Muncie Academy that they furnish a speaker for one of their meetings, saying

that they would be glad to do this if the Muncie Academy would reciprocate with a speaker for one of their 1924 meetings. It was decided to do this.

Twelve members signified their willingness to attend the meeting at Marion on Tuesday, November 27th.

Dr. Kirklin gave a talk on the present situation of the Muncie high school, showing how clean athletics and student activities had elevated the moral tone of school during the last two years. He eulogized Principal Allen for his guidance and wisdom in handling the student body. He announced a community celebration in the house of Bear-Cat football team at the Chamber of Commerce Wednesday, November 28.

Dr. Ed. Davis, of Albany, official referee for Muncie high school football games during seasons 1922-1923, supplimented Dr. Kirklin's remarks by highly complimenting the members of the football team for their sportsmanship and general decorum.

Announcement was made of the grave illness of Dr. Chas. A. Jump, now confined at Muncie Home Hospital on account of a recent, well nigh, fatal hemorrhage from ulcer.

Dr. A. E. Bulson, Fort Wayne, editor of THE INDIANA STATE MEDICAL JOURNAL, complimented the society on its spirit and aggressiveness, on the policy of close co-operation with surrounding counties, on its interest in sports and civic matters, and then entered into the subject he had chosen for the evening: "Socializing Medicine." He dwelt on state medicine, on the socialistic tendencies of the present day relative to the practice of medicine, and spoke of reforms in medicine and restless faddists. He stated that propaganda being spread by well-meaning people was causing a multitude of useless legislation which would have to be annulled before the general situation was improved; sounded danger signals and said that socialization of medicine was rapidly putting cults and faddists in front rank to the exclusion of honorable medicine. He announced that compulsory health insurance as sought by some propagandists in some localities is inapplicable in relief of present difficulties. Dr. Bulson said that charitable hospitals are increasing in number and in capacity by leaps and bounds and bringing under their care multitudes of individuals well able to pay for services rendered, and that the profession should take an active hand in the education of the public; that patients should not be pauperized but should be shamed if put in the pauper class; make the patient feel that if he is unable to pay he will be taken care of, but if able to pay, by all means he should be compelled to pay. Free health is first worthless and second awfully dangerous. Unless the physician takes time to look after the business and financial end of practice of medicine a serious situation confronts him; if we as physicians do not destroy socialism in medicine, socialism in medicine will destroy us. Medical men should awaken, should have more unity and harmony, so that competitive annihilation of medicine should be eradicated. Something should be paid for service; if the standards are lowered the profession is lost. The public as a whole gets propaganda from the advertisements of cults and quacks. The doctor should take the initiative, instead of regarding the thing passively, for if the doctor helps himself he will in turn and directly help and benefit the public.

Copious discussion followed by Dr. King, Dr. Cawing, Dr. Brooks, Dr. J. C. Quick, Dr. Trent, Dr. Kirklin, Dr. Tindall and Dr. Wright, of Newcastle.

E. S. GREEN, M. D., Secretary Pro-Tem.

CORRESPONDENCE

ANOTHER SAMPLE OF "ADJUSTMENT" FOR PREGNANCY

Stockton, Kansas, December 24, 1923.

To the Editor:

The correspondence in the recent number of your Jour-

nal (December 15, 1923) entitled "A Sample of Chiropractic Treatment" was quite worthy of appearance. Your readers may be interested in the following:

A few nights ago I was called to see a girl eighteen years old complaining, as stated by the mother, of having abdominal distress and giving a history of bloating for the previous four months. The patient had been taking daily treatments for nearly four months from an osteopath who had diagnosed the trouble as "gas on the stomach." My examination disclosed a full term pregnancy and patient in labor.

The inconsistent feature of this matter is that these ignorant and illy-trained men are licensed by the state and permitted not only to rub, for two dollars per rub, but can practice obstetrics. They also are permitted to remove tonsils and adenoid tissue and do other operative work, to do a ridiculous fitting of glasses, and to resort to the Abrams and other forms of quackery. How long will the public stand for such imposition?

Sincerely yours,

F. F. STIVERS, M. D.,
Formerly a Member of the Indianapolis
Medical Society.

DEVELOPMENT OF MEDICAL RESERVE CORPS

War Department
Office of the Surgeon General
Washington

November 17, 1923.

To the President Indiana State Medical Association:

In order to properly meet the responsibilities of the medical profession of America in the program for national defense, it is necessary to accomplish the enrollment of all eligible men of the profession in the medical section of the Officers' Reserve Corps.

I am sure it is obvious to you and the members of the society of which you are a member that the organization of an adequate medical reserve contemplates and requires the support and encouragement of all members of the profession.

The advantage of enrollment and classification in time of peace of the body of the profession are conspicuous and include an avoidance of a repetition of the inequalities and defects which developed as a result of our state of unpreparedness for the world war.

It is the desire of the War Department to organize and develop the Reserve Corps so as to provide recognition by promotion in grade and assignment to function in organizations in time of peace which will entail the minimum imposition of hardships on men called to active duty in emergency and will insure military efficiency.

In order that a better understanding of Reserve Corps affairs may be developed in medical societies it is proposed that a military committee be appointed in each society:

The purpose of this committee will be:

(a) To establish and maintain contact with the War Department through the surgeon general.

(b) To promote the organization of the Reserve Corps by procurement of enrollments therein.

(c) To receive information from the War Department in connection with the Reserve Corps and to convey the same to the society.

(d) To convey the recommendations of the society for the improvement of the organization and training of Reserve Officers.

In brief, to establish an agency for the development of a more intimate association between the members of the profession and the War Department.

The organization of the Medical Sections of the Reserve Corps is an outstanding obligation of my office and since proper organization of the medical men of the country for its defense program is a problem which concerns and, I am sure, interests each members of your society, I am asking a continuance of your support and suggest if appropriate that the proposed liaison be effected.

It is requested that this matter be brought to the attention of your society and if it is considered appropriate to organize a military committee that this be done and the name of the committee furnished me. •

Very truly yours,

M. W. IRELAND,
Surgeon General.

In compliance with the above request a military committee to represent the Indiana State Medical Association has been appointed and is as follows: Dr. J. R. Eastman, chairman, Indianapolis, Ind., 331 N. Delaware St.; Dr. LaRue D. Carter, Indianapolis, Ind., 1820 E. 10th St.; Dr. W. M. Stout, Newcastle, Ind., Newcastle Clinic; Dr. Chas. N. Combs, Terre Haute, Ind., 221 S. Sixth St.; Dr. Carl Habich, Indianapolis, Ind., 702 Hume Mansur Bldg.; Dr. R. G. Hendricks, Indianapolis, Ind., 1003 Hume Mansur Bldg.; Dr. J. S. Robison, Winchester, Ind.

TRUTH ABOUT MEDICINES

NEW AND NONOFFICIAL REMEDIES

NATIONAL RADIUM EMANATOR.—A portable appliance for activating water with emanation; the emanation is emitted from a solution of radium chloride, barium chloride and sodium chloride. The appliance is claimed to produce 40 microcuries (150,000 Mache units) of radium emanation to 1,000 Cc. of water daily. The actions, uses and dosage of radium are discussed in New and Nonofficial Remedies, 1923, p. 255. National Radium Products Co., New York. (*Journal. A. M. A.*, December 8, 1923, p. 1953).

IODOSTARINE-ROCHE.—**DIIODOTARIC ACID.**—An iodine addition product of tartrac acid, derived from the fruit of a species of Picramnia. Iodostarine-Roche contains 47.5 per cent. of iodine. It acts in the tissues similarly to inorganic iodides. It is not broken up in the stomach, but a portion of the iodine is split off when it enters the intestine. The undecomposed portion is readily absorbed and, as in the case of other fats, is largely deposited in the tissues where it is slowly split up. The action of iodostarine-Roche is exerted more slowly than that of the inorganic iodides. Iodostarine-Roche is supplied in the form of tablets iodostarine-Roche 0.25 Gm., and as chocolate tablets iodostarine-Roche containing iodostarine-Roche equivalent to iodine 0.01 Gm. Hoffmann-LaRoche Chemical Works, New York. (*Jour. A. M. A.*, December 15, 1923, p. 2032).

TETANUS ANTITOXIN FOR HUMAN USE.—**CUTTER.**—Tetanus antitoxin, concentrated (see New and Nonofficial Remedies, 1923, p. 284), marketed in syringes containing 1,500 and 5,000 units each. Cutter Laboratory, Berkeley, Calif.

DIPHTHERIA TOXIN-ANTITOXIN MIXTURE.—**CUTTER.**—Diphtheria toxin antitoxin mixture (see New and Nonofficial Remedies, 1923, p. 284), each Cc. representing 3 L+ doses of diphtheria toxin neutralized with sufficient antitoxin to conform to the toxicity requirements of the United States public health service. It is marketed in vials containing, respectively, 1 Cc. and 50 Cc., and in syringes containing one immunizing treatment. Cutter Laboratory, Berkeley, Calif.

ANTI-ANTHRAX SERUM FOR HUMAN USE.—**CUTTER.**—An anti-anthrax serum (see New and Nonofficial Remedies, 1923, p. 287), marketed in double-ended vials containing 50 Cc. for intravenous injection. Cutter Laboratory, Berkeley, Calif.

RABIES VACCINE-PASTEUR (CUTTER).—An anti-rabic vaccine (see New and Nonofficial Remedies, 1923, p. 294), prepared according to the method of the Hygienic Laboratory of the United States Public Health Service. The emulsion from the cord is shipped daily and is diluted at the time of injection. The treatment consists

of 21 daily injections. Cutter Laboratory, Berkeley, Calif.

DIPHTHERIA TOXIN FOR THE SCHICK TEST—CUTTER.—A diphtheria immunity test (see New and Nonofficial Remedies, 1923, p. 323), marketed in packages of two vials, one containing diphtheria toxin and the other physiologic solution of sodium chloride for dilution. Cutter Laboratory, Berkeley, Calif.

CAPSULES CARBON TETRACHLORIDE (HUMAN USE)—**P. D. & Co.**—A brand of carbontetrachloride—**N. N. R.** It is marketed in capsules containing 20 minims. Parke, Davis & Co., Detroit.

ELIXIR OF VERONAL.—Each fluid drachm contains veronal (see New and Nonofficial Remedies, 1923, p. 63), 2 grains in a menstrum containing alcohol 33.5 per cent. Winthrop Chemical Co., New York.

DIPHTHERIA TOXIN-ANTITOXIN MIXTURE (NEW FORMULA)—**SQUIBB.**—Diphtheria toxin-antitoxin mixture (see New and Nonofficial Remedies, 1923, p. 284), containing in each cubic centimeter 0.1 L+ dose of diphtheria toxin neutralized with the required amount of diphtheria antitoxin. Marketed in packages of three vials, each containing 1 Cc.; and in vials containing, respectively, 10 Cc. and 20 Cc. of the mixture. E. R. Squibb & Sons, New York—(*Jour. A. M. A.*, December 22, 1923, p. 2115).

PROPAGANDA FOR REFORM

LIQUID PETROLATUM AS A LAXATIVE.—Liquid petrolatum is indigestible. It is not absorbed, and, therefore, cannot produce poisoning. In ordinary quantities the administration of liquid petrolatum does not seriously impair the alimentary efficiency. Like all laxatives used in very large quantities, liquid petrolatum may diminish the degree of utilization of food by promoting evacuation before the functions of digestion and absorption can be entirely completed. Liquid petrolatum may produce gastric distress and, therefore, should be taken in a way to interfere least with gastric digestion by administration before bedtime or an hour before meals. In reporting on a proprietary brand of liquid petrolatum widely exploited to the public, the Council on Pharmacy and Chemistry warned that constipation should be treated by dietary and hygienic means, as evacuates are but temporary measures. It further cautioned that liquid petrolatum is medicinal; it modifies greatly the intestinal flora; it acts as a lubricant and emollient; it modifies the absorptive powers of the intestinal mucous membrane; it is capable of influencing the digestion of fats; and, in short, liquid petrolatum is a drug, the indiscriminate and excessive use of which should not be encouraged.—(*Jour. A. M. A.*, December 1, 1923, p. 1896).

SPÄHLINGER TREATMENT FOR TUBERCULOSIS.—Spählinger is a resident of Geneva who received medical training but took his degree in law. Later he abandoned law for research work. The Spählinger treatment makes use of vaccine and serum therapy. The theories from which the treatment is evolved is that the tubercle bacillus emits different toxins under varying conditions of temperature, environment, etc. Many of these are claimed to be isolated as either exotoxins or endotoxins. The vaccines—of which there are said to be about twenty—are used for prophylaxis for treatment of the milder cases of tuberculosis and for the production of the various serums used in the treatment of the more severe cases. It has been reported that the British ministry of health is prepared to encourage the experimental trial of the Spählinger preparations under scientific supervision. The British Red Cross has appropriated money to enable Spählinger to work on a larger scale in the production of his preparations. The reports in regard to the efficacy of the preparations which have appeared in British medical journals are conflicting, and the Red Cross organization has made it clear that the products are in the experimental stage.—(*Jour. A. M. A.*, December 1, 1923, p. 1896).

THE GALVANO METHOD FOR GOITER.—In the cheap and not too particular rural weeklies, advertisements have appeared for the "Galvano Necklace" said to be "the latest discovery for the relief or cure of goiter by mild electrical treatment." The device is advertised by the Cosmas Pharmacal Co., Watertown, Wis. The advertising for this device stresses the fact that the United States patent office has granted a patent on it. The public does not know, of course, that the United States patent office has granted patents on many pieces of medical pseudo-science. According to the patent specifications, the Galvano Necklace consists of beads made of glass, or other insulating material, between which are placed, alternately, small zinc and copper disks. Through the disks and beads run a metallic wire. The alleged purpose of the invention is that of "generating galvanic currents in contact with the skin in the presence of mercurous iodid and calcium chlorid." In use, an ointment containing mercurous iodid and calcium chlorid is applied to the skin of the neck, and the necklace is hung so that the zinc and copper disks will come in contact with the annointed skin. That this device has decided value in the treatment of goiter is unthinkable. Young women with physiologic enlargement of the thyroid will, doubtless, continue to purchase the device and as the enlargement disappears, as it normally does, will furnish testimonials for the promotion of the device.—(*Jour. A. M. A.*, December 8, 1923, p. 1974).

SANTOPERONIN.—According to Professor Heubner, the history of Santoperonin, claimed to be an ascaridice, does not arouse confidence. The proprietary was placed on the German market before satisfying the requirements that should govern the introduction of new medicaments. Its composition has varied; the exploiter has maintained an air of secrecy concerning the identity. Examination indicated that it was a mixture of copper oxid with organic material which consists essentially of aromatic compounds. There seems to be little clinical evidence to warrant its use.—(*Jour. A. M. A.*, December 15, 1923, p. 2055).

"A" FORMULA OR "THE" FORMULA?—When the proprietary evil in the United States was at its worst, a common piece of advertising deceit was that of the fake formula. On its face, such a "formula" was impressive—at least to those who were not chemists. After the American Medical Association created its own chemical laboratory, the Association chemists demonstrated repeatedly the absurdity of the serio-comic chemistry of some of the pharmaceutical manufacturers. It was not long before the crude chemistry and cruder dishonesty of pharmaceutical concerns began to disappear. Yet today there are still a few firms which endeavor to lend plausibility to their wares by resurrecting old methods. The report of the Council on Pharmacy and Chemistry on Gly-So-Iodonate brings out that a formula, both qualitative and quantitative, appears on the label of the preparation. The formula is absurd and impossible, and the A. M. A. Chemical Laboratory found that some of the ingredients were not present in the amount claimed.—(*Jour. A. M. A.*, December 22, 1923, p. 2118).

GLY-SO-ODONATE.—The Council on Pharmacy and Chemistry reports that in 1921 consideration of Gly-So-Iodonate was requested. The product, said to be a "chemical germicide-antiseptic" was "owned and controlled exclusively by the Wisconsin Medical Laboratories" which is at the present time claimed to be affiliated with the National Medical Research Laboratories, Milwaukee, Wis. A statements of composition was furnished the Council, which named iodine, potassium iodid, sodium carbonate, sodium bicarbonate, mercuric chlorid, calcium sulphate and magnesium sulphate as chemicals entering into the product. The method of preparation contained the claim that these substances after solution in water were distilled. The Council considered the information and informed the Wisconsin Medical Laboratories that obviously the formula was an impossible one, since

the iodine would react with alkali iodid and alkali carbonate to form iodid and iodate, and the mercuric chlorid would react to form alkali mercuric iodid. Also, while Gly-So-Iodonate was claimed to be a distillate, the solids of the formula evidently could not be distilled with water vapors. Further, the Council held the formula to be needlessly complex and, therefore irrational and the name unacceptable because it was not descriptive of the composition of the product. From recent developments, it is evident that an active selling campaign for Gly-So-Iodonate is being directed toward factories and large commercial concerns by the National Medical Research Laboratories. Also, new products—Iomer-Mensal, Saline-Meramo and Gly-So-Dental—which are said to have Gly-So-Iodonate for their base are marketed. The statements of the composition of Gly-So-Iodonate have not been materially changed. Incomplete and meaningless statements of composition appear on the labels of the products. Platinum and vegetable alkaloids are claimed to be constituents of Gly-So-Iodonate. The A. M. A. Chemical Laboratory reported that there were no alkaloids present, that mercury was present in less than one-twentieth of the claimed amount and that platinum was present in less than one-forty-fifth of the asserted amount. From the report of the Council it is evident that Gly-So-Iodonate does not have the composition claimed, that the name is nondescriptive and misleading, and that the product is marketed with unwarranted claims.—(*Jour. A. M. A.*, December 22, 1923, p. 2132).

DOES HEAT INJURE VACCINES?—It is generally believed that vaccines lose in potency on standing at room temperature. But so far as known, the sterilization of vaccines by heat does not injure the antigenic potency any more than other methods of sterilization, e. g., chemicals. The astounding deduction of a manufacturer of vaccines that heat sterilization, at a definite temperature for a given time, must be highly injurious, because vaccines lose in potency on standing for weeks and months at variable room temperature, is simply a pseudoscientific statement intended presumably to bolster up the merits of the advertised wares in the eyes of the more or less thoughtless purchasers.—(*Jour. A. M. A.*, December 22, 1923, p. 2135).

BOOK REVIEWS

TUBERCULOSIS OF CHILDREN—ITS DIAGNOSIS AND TREATMENT. By Professor Dr. Hans Much, Director Department for the Science of Immunity and for the Research of Tuberculosis at the University of Hamburg, Germany. Translated by Dr. Max Rothschild, Medical Director California Sanatorium for the Treatment of Tuberculosis, San Francisco and Belmont, California. New York, The MacMillan Company, 1921. Cloth, pp. 156.

The author bases his theme on the claims of Behring, Schlossman and others that tuberculosis is a disease of childhood and hence the importance of a study of the disease during that period of life.

The method of treatment stressed by the author, namely by partial antegens or "partigens", must of course yield first place to the commonly accepted hygienic measures.

Though somewhat clumsily written, there is much of interest and value in this little volume.

PHYSIOTHERAPY TECHNIC. A Manual of Applied Physics by C. M. Sampson, M.D., formerly of the physiotherapy service, Walter Reed United States Army Hospital, Washington, D. C. 444 pages. 85 illustrations. Cloth, \$6.50. C. V. Mosby Company, St. Louis, 1923.

It must be admitted that physiotherapy is a subject that has been much neglected, and the value of which has been much under-estimated by the rank and file of the medical profession. Therefore, a work on the subject by a medical man who not only has given it special

attention and study but who has had an enormous amount of experience with it is worthy of wide reading on the part of the general medical profession.

No doubt many physicians will consider that the author is over-enthusiastic concerning the subject, if not given to actual exaggeration as to some of the benefits derived, the enthusiasm, and optimism perhaps, in a measure, due to failure on the part of the author to analyze critically all of the reasons for the results secured. However, there is so much comprehensive information concerning the whole subject of physiotherapy, and as the deductions drawn seem to be based upon a research both in the laboratory and in the clinic, we are inclined to overlook any seeming undue optimism as to results to be secured from physiotherapy and recommend that every progressive medical man familiarize himself with the subject.

The expressed aim of the author is to furnish the doctor or staffs of institutions just starting in physiotherapy with a proved good method to start with, and thus avoid many of the difficulties that they otherwise would encounter in working out a technic for themselves, and, incidentally, to give those already having their procedures worked out an opportunity to compare methods and possibly to improve both to our mutual profit and the benefit of the patients. The author had an abundant opportunity to test his work while engaged in physiotherapy service in the United States army and the various public health hospitals. In fact, he was given almost unlimited opportunity to test out modalities and technics. For instance, in one of the hospitals with which he was connected there were during his service over seventeen hundred peripheral nerve injuries. Over six hundred were there at one time. This is but a sample of the wealth of material that was at his disposal. Where in private practice a busy physician may have seen one or a few cases of a given kind, the army hospitals with which the author was connected saw them by scores and hundreds. Many cases that looked absolutely hopeless from disease or disability, proved to give astounding results when given the advantage of properly applied physiotherapy, and surgeons learned that cases that had become inoperable might in some instances at least be brought back to the realm of surgical possibilities. They also learned that physiotherapy might and often did put an operative case that they had consigned to the failure percentage column back into the successes. It is also proved that physiotherapy is a valuable aid to any of the specialists, and in fact should form a part of medical and surgical practice. The author well contends that physiotherapy is not a separate cultism, but can do its best work only in institutions and in group hospitals where expert advice from all angles can and always will be given. He contends that it is a special field and requires special training and experience, and that when it fails there are ample reasons for the failure.

The author classifies physical remedies into thermal, chemical, mechanical and electronic. The chapters relating to the use of the x-ray, ultra violet rays, high frequency, galvanic, faradic and sinusoidal currents, massage, hydrotherapy and the use of various forms of heat, are all very interesting. The indications and results are recorded, based upon experience, and not a few case histories are given to prove the value of the particular physiotherapy treatment used.

We rather admire the punch which the author gives to everything that he discusses, though we think it in rather bad taste to use a textbook for airing army grievances brought about through either a misunderstanding or dispute over the place which physiotherapy should have in reconstruction hospitals. However, all in all we feel that it is a book well worth the attention of every medical man who is interested in progress in the treatment of human ailments.

mology in the University of Pennsylvania. Ninth edition, reset. Octavo of 832 pages with 415 text-illustrations and 7 colored plates. Philadelphia and London: W. B. Saunders Company, 1921. Cloth. \$10.00 net.

The author of this book is a teacher, a clinician of very wide experience and critical observation, and an author of note. Nine editions of his textbook on Diseases of the Eye is sufficient evidence of the popularity of the work, and the reception is well deserved, for there is no textbook that stands higher as an authority. In fact, while this book is essentially prepared for the use of students and general practitioners of medicine, at the same time it is sufficiently comprehensive to prove useful in the library of the ophthalmic specialist. Successive editions always have been up-to-date, and the last is no exception, as it includes reference to important ophthalmic observations, therapeutic measures and surgical procedures which have been made, recommended and devised during the last four years. The World War furnished unusual opportunities for an advance in the solution of ophthalmic problems, and the author had unusual opportunities for observing as well as actually directing some of the advanced work that was done. All the newer operations and methods of treatment are described. The recent revision includes not only the discussion of many new subjects but a rearrangement and additions to the subject matter of many chapters. A number of new illustrations have been added to the large number that were found in previous editions. It is perhaps superfluous to say that the book will continue to merit the endorsement and approval of the medical profession as representing one of the best ophthalmic textbooks in print.

PRACTICAL LOCAL ANESTHESIA AND ITS SURGICAL TECHNIC. By Robert Emmett Farr, M.D., F.A.C.S., Minneapolis, Minn. Illustrated with 219 engravings and 16 plates. Price, \$8.00. Philadelphia and New York: Lea & Febiger, 1923.

Dr. Farr is the chief American protagonist of infiltration anesthesia. He states in the preface that "as far as possible, stress has been laid upon the particular methods which have proven best in the author's experience." Dr. Farr has succeeded in presenting his subject in such a way that the beginner, by following the text, can work out the details of operating under infiltration anesthesia. This book is an exposition of the technic of infiltration and not regional anesthesia. We have at present a very great, even if delayed, interest in local anesthesia and this book of 529 pages is a valuable, practical contribution to the subject. It is quite evident that the author's satisfaction with his technic is due largely to his careful and gentle method of operating.

The chapter which deals with the anatomy of the sensory nervous system could be omitted without loss; the sixteen plates which are found here are old, familiar ones from Gray and Testut and, no doubt, they add materially to the cost of producing the book. The description of the brachial plexus is worse than useless. It is stated that "the divisions of the brachial plexus which concern us are the median, ulnar and radial." The author does not seem to know that the circumflex, musculo-cutaneous, internal cutaneous and lesser internal cutaneous also supply sensory fibres to the upper extremity.

It would have been wiser if Farr had not attempted descriptions of various methods of regional anesthesia. The procedure described are copied mostly intact from the well known book by Heinrich Braun. Venous, Arterial, Para-Sacral, Para-Vertebral, Splanchnic, and Brachial Anesthesia as well as the methods of blocking the fifth nerve are more or less complete quotations from Braun. The disasters which have resulted from Kulenkampff's block are, of course, not mentioned. If the surgeon wishes to employ these methods of regional anesthesia he should certainly study Braun or some other text-book in place of the one under review.

DISEASES OF THE EYE. A Handbook of Ophthalmic Practice for Students and Practitioners. By George E. deSchweinitz, M.D., LL.D. Professor of Ophthal-

The transverse infiltration of a thigh, with novocaine-adrenalin solution, in a man seventy years of age is an unnecessary and foolish procedure and its employment will tend to bring local anesthesia into disrepute. The radical amputation of a breast under an infiltration of 20 Cc of 1 per cent and 540 Cc of 0.5 per cent novocaine-adrenalin solution demonstrates some of the possibilities, but not the wisdom, of operating under local anesthesia.

The author enters into no details regarding the preparation and sterilization of his anesthetic solutions. Speaking on novocaine, he says, "We prefer a solution between 0.7 and 1 per cent," and he adds "from 2 to 5 drops of 1 to 1000 solution of adrenalin to each 30 Cc of novocaine solution." He should have called attention to the maximum dose of adrenalin, its toxic action in certain cases and its tendency to decompose when brought into contact with alkaline solutions. More attention should be directed to the fact that novocaine is toxic and dangerous symptoms have frequently developed from its use in patients of low resistance.

The chapter dealing with equipment and armamentarium is one of the most valuable portions of the book, but the beginner might be told that an elaborate "pneumatic injector" is by no means essential to success.

EXCURSIONS INTO SURGICAL SUBJECTS. By John B. Deaver, M.D., Emeritus Professor of Surgery, University of Pennsylvania; Surgeon-in-Chief, Lankenau Hospital, Philadelphia, and Stanley P. Rieman, M.D., Assistant Professor of Experimental Pathology, University of Pennsylvania; Chief of the Department of Pathology and Bacteriology, Lankenau Hospital, Philadelphia. Octavo Volume of 188 pages and 30 illustrations. Philadelphia and London: W. B. Saunders Company, 1923. Cloth, \$4.50 net.

This book resembles Moynihan's *Essays on Surgical Subjects*. It is written in a charming fashion by one of America's most distinguished surgeons. Peptic Ulcer, Jaundice, Diseases of the Bile Passages, Trials, Tribulations and Joys of a Surgeon, Some Surgical Conditions of the Intestinal Tract, The Contribution of Pasteur to Modern Surgery, Medical Education and Educators and Living Pathology are the titles of the eight excursions; the first five represent, in substance, a series of lectures delivered by Deaver in July, 1922, at Washington University, Seattle, Wash.; of the other three essays only one has been published in a current, medical periodical. The book should be read by every surgeon.

PENNINGTON'S "DISEASES OF THE RECTUM, ANUS AND PELVIC COLON," 679 illustrations, including 2 plates, cloth \$12.00. By J. Rawson Pennington, M.D., F.A.C.S., Proctologist to the Columbus Hospital, Veterans' Hospital No. 30, and the United States Marine Hospital. Chairman of the Scientific Assembly, Section on Gastro-Enterology and Proctology, American Medical Association. Published by P. Blakiston's Son & Co., 1012 Walnut St., Philadelphia.

Dr. Pennington has produced an excellent book. He is a recognized authority on diseases of the anus, rectum and pelvic colon. In the preface he states that "the most recent treatise on Proctology is that by the late James P. Tuttle," however, within a few months of the publication of Pennington's book there has appeared the treatise of Lockhart-Mummery, as well as the three-volume work of Gant, so we are at present well supplied with text-books dealing with this subject.

One of the unusual features of this book is its collection of portraits of various surgeons—each chapter is prefaced with one or two such portraits. It is safe to say that the majority of these surgeons would resent a statement that they were Proctologists.

Pennington lays great emphasis on what he terms the "Splancho-somatic Funnel," which is formed by the rectal fascia without and the pectinate line within the

bowel. On page 18 he says, "This chapter and the accompanying illustrations describe and depict for the first time the topographic location of proctologic diseases." The reviewer cannot understand why chapters one and five are not combined into one chapter, as they both deal with the anatomy of the anus and rectum. The author does not seem to be aware of the recent view that the anus is not formed by a depression in the ectoderm of the perineum, but results from the absorption of a definite cellular mass. We feel that not sufficient space has been devoted to the important observations of Goodsall regarding the definite relationship existing between the external and internal openings of fistulae—these observations deserve, at least, as much space as does the subject of "Musical Anus." We also believe that the technic of stretching or divulsion of the sphincters demands a careful description in a work of this character. The index is inadequate—the sphincters are not mentioned!

It is interesting to note that Pennington places a tampon in the rectum after all hemorrhoid operations.

The reviewer has no hesitancy in saying that this book deserves equal rank with any treatise on the subject of diseases of the rectum.

1922 COLLECTED PAPERS OF THE MAYO CLINIC, ROCHESTER, MINN. Octavo of 1394 pages, 488 illustrations. Philadelphia and London: W. B. Saunders Company, 1923. Cloth, \$13.00 net.

Each year Mrs. Mellish edits and presents to us these collected papers, and each year they form one of the most valuable medical volumes published in any language. This is volume xiv. and, like its predecessors, it cannot be adequately reviewed. It contains 154 articles which are subdivided as follows: Alimentary Tract, 28; Urogenital Organs, 19; Ductless Glands, 6; Blood and Circulatory Organs, 13; Skin and Syphilis, 9; Head, Trunk and Extremities, 37; Brain, Spinal Cord and Nerves, 8; Organic and Physiologic Chemistry, 4; General Miscellaneous, 15; Technic, 6. There is also an index of contributors, a bibliographical index and an index of subjects. The article by Charles H. Mayo on the "Cause and Relief of Acute Intestinal Obstruction" should be carefully read by every practitioner of medicine. William J. Mayo's contribution on "Radical Operations on the Stomach with Especial Reference to Mobilization of the Lesser Curvature," is of unusual value to the gastric surgeon. Hedblom presents four interesting articles which deal with surgery of the chest. The discussion by Judd, Braasch and Scholl on the subject of horseshoe kidney deserves especial mention. This volume is of value not only to the surgeon but to every man who is interested in any department of medicine.

PIERRE AND TEENOM

By David H. Livingston

Teenom have been felt bad in the middle a long, long time. So, the next time he pass himself to town he talk wid the doctor. When the doctor have finish his exam' wid Teenom, that Louisiana Cajun wrinkle his face up and say, "Doggone!" Then he hurry up fast home.

"What the doctor tell you to do?" Pierre ax Teenom.

"My goodness!" say Teenom, "that doctor tell me I must do way wid my appendix!"

"You have decide to do that, eh?" Pierre ax.

"*Eh, bien, Pierre!*" say Teenom, almost cry, "if I don't wear no appendix no more, how am I going to keep my pants up?"

CINCHONA DERIVATIVES IN THE TREATMENT OF HEART DISORDERS

K. F. Wenckebach, Vienna, Austria (*Journal A. M. A.*, Aug. 11, 1923), states that his objection to quinin in heart disease was that it had been shown by Stantesson and by Stokvis to be a heart-paralyzing drug, but clinical experience disproved this laboratory finding. Wenckebach points out that one can never tell from the pharmacologic action of the drug how it will work at the bedside; for instance, we should never forget that the action of digitalis also on the heart is mainly and primarily a depressing action on the functions of heart muscles, at least as far as its vagus action is concerned, and still digitalis is the most powerful and most brilliant of all heart drugs. Physicians should not avoid giving drugs that have been found to be useful at the bedside on account of theoretical arguments only. The first arrhythmia in which Wenckebach had complete success with small doses of quinin (from 0.3 to 0.4 gm.) was extrasystole. The man had a very serious insufficiency of the aortic valves. His heart was in a very bad condition, and he knew that he had only a short time to live. He bore his condition very well, but there was one thing which made life unendurable to him, namely, periods of extrasystole. The extraordinarily strong pulse wave, following the compensatory pause of the extrasystole, made him feel so utterly miserable that he asked energetically for relief. Wenckebach gave him strychnin. In doses of from 2 to 3 mg. daily, this drug helped him as soon as extrasystole came on, and the favorable effect was not lost until the end. Strychnin in these small doses is helpful in cases of extrasystole in otherwise normal as well as in diseased hearts, but very often it does not act strongly enough, or it loses its action very soon. In these cases he tried the combination of quinin and strychnin and found that this form of treatment was completely successful in the great majority of cases. Wenckebach gives from 0.3 to 0.4 gm. of quinin daily, plus 2 or 3 mg. of strychnin through periods of ten days. It has also proved useful, to some extent, in the different forms of paroxysmal tachycardia, and in cases of marked so-called sinus arrhythmia starting in the normal pace-maker itself. In those forms of tachycardia, especially, found so frequently in adolescence, in nervous, rapidly grown-up young people, quinin, especially in combination with strychnin with its marked vasomotor influence, may be of great help. The combination of quinin and strychnin stabilizes the heart action quickly. Summarizing his own experience and the work done by others, Wenckebach says that quinin has its greatest success in those cases in which there is not much wrong with the heart, in which fibrillation has been present for not too long a time or is showing itself in attacks as a special form of paroxysmal tachy-

cardia. When auricular fibrillation is the only abnormal phenomenon of the heart, the disappearance of this disagreeable form of disturbance of the heart mechanism may be a complete cure, freeing the patient not only from his subjective symptoms but at the same time from the suspicion of having a myocarditis, or, at least, of some bad condition of the heart muscles. On the other hand, in cases in which fibrillation is only a part of the morbid condition, when valvular disease or pathologic changes in the heart muscles are the chief features of the disease, the abolishing of fibrillation will give only partial relief. In such cases all cinchona derivatives are depressing drugs and should not be given in too large quantities. Generally speaking, real heart failure asks for digitalis, and it may be necessary to avoid quinidin until the condition of the heart is much better. To avoid an unfavorable effect of quinidin, one should try to find out whether auricular fibrillation plays an important role in the development of the disturbance of the circulation. Some clinical observations have shown that in so-called vascular crises (sudden spasm, *i. e.*, hyperkinesis of the walls of the smaller arteries) quinin may stop the spasm and so relieve the patient of his symptoms.

SOME TOXIC EFFECTS OF DIGITALIS

In thirteen cases in which untoward results followed the administration of digitalis, the records were analyzed by William D. Reid, Boston (*Journal A. M. A.*, Aug. 11, 1923), to obtain information regarding the appearance of these toxic effects in relation to the total amount of the drug estimated to be then effective in the patients, and to the amount of digitalis indicated according to the Eggleston method of calculating this. The toxic effects here described are: coupled rhythm, partial heart block with an acceleration of the sinus rate, the onset of auricular fibrillation, and paroxysmal tachycardia originating in the ventricle. Partial heart block with an increase of the sinus rate, and of ventricular ectopic tachycardia, closely simulates the clinical picture of flutter of the auricles. Continuing the administration of digitalis, especially in cases of the latter arrhythmia, is dangerous. The tincture of digitalis administered to the patient described in this report was effective at a total dosage approximating that indicated by calculations based on the Eggleston method. When using a large dosage of digitalis, the physician should know at all times the relation of the amount of the drug already administered to that which would be expected to be the approximate amount for therapeutic effect. If signs or symptoms appear that may be toxic effects of the drug, and if calculation shows that the amount already given is near or above the Eggleston dosage, additional digitalis should be administered cautiously, if at all.

THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

ISSUED MONTHLY under Direction of the Council

ALBERT E. BULSON, Jr., B.S., M.D., Editor and Manager

OFFICE OF PUBLICATION: 406 West Berry Street, FORT WAYNE, INDIANA

VOLUME XVII

FEBRUARY, 1924

NUMBER 2

ORIGINAL ARTICLES

ACUTE HALLUCINOSIS FOLLOWING OPERATIONS ON THE AGED, ESPECIALLY PROSTATECTOMY

JOSEPH RILUS EASTMAN, M. D.
JOSEPH ERLE KILMAN, M. D.
INDIANAPOLIS

The aim of the following article is to set forth the importance of returning to the familiar home environment, old patients who develop acute psychoses during hospital residence before or after surgical operations, such as prostatectomy.

That peculiar mental aberrations following surgical operation upon the aged are common, has long been noted. The post-operative development of this somewhat mysterious psychosis is deserving of careful analysis both as to etiological factors and therapeutic measures. Senility in itself offers a fertile field for many psychologic phenomena such as temporary amnesia and perverted emotional states, particularly a superficial sentimentalism. The aged person, like a child, is affected to an exaggerated degree by each slight change in his or her environment. Give an old man such a shock as a change of place and persons, together with the elaborate detail of modern hospitals as a constant environment, and it is not to be wondered that he will seek that mental seclusiveness which gives him his only relief. He will eliminate his immediate surroundings from the personality and find comfort, so to speak, in his auditory and visual hallucinations. The casual observer will report him as confused, and indeed he is. He calls for his friends, rises at night from his bed in search of familiar faces and objects. It is this condition that the surgeon is often called upon to treat.

The convalescence is sometimes gravely impaired by such a complication. The condition interferes especially with rest at night. Various phobias may develop, keeping the patient in a state of almost constant fear. He may even develop low grade persecutory delusions, distrusting those about him, doubting their good intentions. There is sometimes a complete change of personality during which time there are but a few lucid moments each day, with sufficient insight into his condition as to alarm him increasingly. Usually,

however, the affair simulates dream states; a confusional delirium unassociated with fever. One might well classify the malady under the head of exhaustion psychosis. However, we feel that while fatigue is undoubtedly an important factor it simply furnishes the background for a clinical picture of which many other factors are very necessary elements. Strange faces, unusual noises, fixed position with eyes gazing at a blank ceiling, all these plus fatigue, disorient the senile mind. Whether or not prostatic cases are more prone to the development of this interesting condition because of faulty kidney function, is an open question. Certainly, however, the minds of such cases are often so confused.

Such an acute hallucinosis is by no means a slight matter. It is likely to result rather promptly in serious nutritional disturbances, which in a patient already reduced in vitality, may lead to a fatality. If the psychosis is of the agitated type, the consequent loss of rest and sleep will bring about complete exhaustion if unrelieved within a few days. Continuous cerebration with refusal to take food, particularly liquids, is obviously of serious import.

To the end that orientation may be re-established it seems prudent to arrange that patients after prostatectomy receive frequent visits from immediate relatives. Permitting the wife or a grown-up son or daughter to remain at all times in the patient's room has occasionally served to prevent such an old individual from becoming lost mentally or to bring him back to a rational state after aberration had become manifest. Not infrequently, however, the simple expedient of asking the wife to sit at the patient's bedside has not sufficed to correct the disorientation. In such instances we have found that to send the patient home in an ambulance is a truly life-saving measure. Almost invariably such confused, sleepless old men return to a quite rational state of mind upon reaching the home with its familiar faces, voices and long known objects of all kinds, animate and inanimate. Nurses accompanying such patients to their homes, have recorded interesting and sometimes amusing instances of rather sudden return to a normal state of mind as a result of the patient's hearing the familiar bark of the old house dog, the clearing away of the confusion,

upon recognition of the farm house and barn, a stile or gate, or a farm implement standing in the field, a tree or a many times traveled lane. The reason for this is, of course, not far to seek; these objects serve as guide posts to turn the mental processes into their normal channels.

It is in the belief that this simple but very helpful expedient may have been overlooked by surgeons, perhaps to some extent because of its very simplicity, that the foregoing report is submitted. We believe that we have been able to save a number of old "prostatikers" from fatal exhaustion by sending them home in an ambulance or by train, even in cases where the distance was one hundred miles or more. Admitting that in practically every instance the conditions in the home would not be favorable for proper care of the wound, the step is nevertheless advisable at times for the reason that the disordered mental condition may and often does represent the most serious, if not the only cause for anxiety as to the outcome of the case.

We are aware of the fact that this is contrary to the usual custom of treating mental disorders. Manic depressive insanity, incipient dementia praecox cases and even senile dementia are best treated in institutions where they are absolutely isolated from home surroundings and relatives. It must be remembered, however, that these types are insidious in their onset, many weeks, months or even years elapsing before the condition is recognized. Even exhaustion psychoses developing in the home consequent to chronic wasting disease or following typhoid clear up more satisfactorily with institutional care.

The new environment is helpful to individuals representative of these types awakening a new interest in themselves and others. They are not understood at home and are unduly censored by a misinformed and unsympathetic community. Some need discipline, others sympathetic care, according to the judgment of psychiatrists and trained attendants.

Whereas the treatment of the peculiar psychosis developing post-operatively in elderly individuals, as related, is an exception to the usual custom, really the method is the same; namely that of changing the environment. The gratifying recovery following this simple expedient of sending the patient home is the phase of the matter we wish especially to emphasize. The obvious solution often goes unrecognized because of its simplicity. And so in the handling of this peculiar mental derangement, the surgeon may avail himself of a simple, satisfactory remedy for what otherwise might prove a quite baffling problem, should he be inclined to procrastinate.

SOME EXPERIMENTAL STUDIES IN KIDNEY REGENERATION*

ERNEST RUEP, M.D.

INDIANAPOLIS

There has been a tendency in operative procedures to show little regard for kidney tissue, and for almost every disease of the kidney surgical procedures have been recommended.

Within very recent times the interest of surgeons has been directed strongly toward the cure of chronic nephritis by stripping off the capsule of the kidney. Edebohls¹, who was first to operate with the object of curing the condition, believed that the increased blood supply between the kidney and its adjacent tissues led to absorption of the interstitial exudates, with regeneration of epithelium capable of carrying on function. In our experiments on rabbits and rats the capsule formed was thicker than the original one and was without anastomoses between the renal and perirenal vessels. Similar results have been obtained in experiments on dogs². The anatomic basis for improvement has not been explained, and decapsulation for chronic nephritis has been practically abandoned.

With tuberculosis, also, the trend is towards conservatism. It has been held that the presence of tubercle bacilli in the urine from one kidney and not in that from the other justifies a nephrectomy on the affected side, so that the healthy organ may escape the damage of subsequent infection. Pathologists, however, have shown that the tubercle bacilli may be found in the urine when no lesion is present in the kidney or urinary tract. Thus the presence of the organisms alone, without other symptoms of kidney disease, is not enough to cause one to rush to a nephrectomy for a cure of the condition. Furthermore, tuberculosis of the kidney is never primary and the source of the existing lesion may well be the source of another. Lower³ has observed the development of acute miliary tuberculosis immediately following the manipulation of nephrectomy. He is convinced that the correct attitude is one which calls for no hurry in sacrificing a kidney when there is reason to believe that it will bear watching.

Some remarkable instances of the reparative power of the kidney have been noted even in pyonephrosis where the obstructive agent had been removed. Gibbon⁴ reports an unusual case of unilateral involvement where the general health of the patient would not permit a nephrectomy, though it was indicated, and a simple drainage proved sufficient in the emergency. Later, calculi developed in the other kidney, which had to be removed. The original pyonephrotic organ had undergone such repair that it was able to meet the needs of the body.

*Presented before the Section on Surgery of the Indiana State Medical Association, Terre Haute session, September, 1923.

The recent investigations of hydronephrosis, by Hinman⁵, show that a hydronephrotic condition can be turned into one where function is good and sufficient if the obstruction be removed and the organ be forced to do the work.

These experimental and clinical experiences suggested to the author an investigation on the question of conservation of kidney tissue after injury. It was decided to destroy portions of healthy kidneys and at a later time call on the remaining tissue of those organs to bear the burden of supplying the body needs. Through the courtesy of Dr. W. D. Gatch, the facilities of the department of surgical pathology of the Indiana University School of Medicine were utilized. Healthy young rabbits, weighing 1 to 1.5 kilograms, and white rats were employed for the purpose. Under general ether anesthesia the animals were subjected to abdominal section, and only those with normal appearing urinary organs were used. To destroy the portion various means were employed. The rabbit and rat kidney can be lifted easily without much dragging on the peritoneum or pedicle, and to the upper half of three kidneys a flat metal clamp covered with gauze was applied and the tissue crushed thoroughly. In two instances the artery to the inferior end was ligated. By the use of a coiled wire spring, the coils of which could be separated and slipped over the end to the middle of the kidney without occluding the vessels of the hilum, one-half an organ could be isolated easily within the spring. The springs were comparatively stiff and the wire sank deeply into the tissues immediately on being released. A ligature was placed on one artery supplying half of the inferior end, thus affecting the blood supply to one-fourth of the organ. In three instances the renal artery was ligated. Three left ureters were ligated near the bladder. In three cases the ureter was crushed in one or more places by an artery clamp, in order that the degree of stricture resultant thereto might be determined. An ordinary nephrectomy was done in one instance. Along with the destructive procedures, one kidney was decapsulated. Two were removed from their beds with the peritoneum opened freely around them, and with the organs left, without attachments to the posterior abdominal wall, the abdomen was closed.

After a lapse of from nineteen to forty days the animals were either killed or subjected to a secondary operation, in which the function of a portion of the other kidney was destroyed. This was accomplished by crushing in some instances, in others by a gradual obstruction to the ureter, produced by small rubber bands, so placed as to occlude partially. This method was described by Hinman, who used it for a partial block and gradual elimination of the originally undamaged kidney, since thrusting the load suddenly upon the damaged organ usually produced death. For one secondary procedure a nephrectomy was done

thirty-three days following a primary wire application to half of the other kidney. In one of the rabbits thirty-two days following ligation of the right ureter, the kidney was found enormously dilated, and twenty-five cc. of dark fluid was withdrawn from the ureter which had dilated to the size of a lead pencil. At this time the ureter was transplanted into the bladder. Fourteen days later the other ureter was partially obstructed to produce gradual hydronephrosis.

Wherever possible, studies of more than one type were made on the same animal. For instance, a crushing operation could be performed on an extirpated organ; one kidney could be used while the ureter to the other side could be crushed; and artery to one tied, and a spring applied to the opposite, and so on. Three animals were operated three times; fourteen were operated twice. It can be seen readily that the element of shock incident to the repetition of surgical injury might have some influence on the results.

It was found, as a consequence, that ligation of an artery to any portion of the kidney, whether that portion be small, one-fourth, or one-half, is followed by a well defined area of tissue necrosis and fibrosis. Nature's ability to save the anemic section by blood supply through an anastomosis with adjacent vessels is apparently feeble.

On nineteen days after the ligation of a renal artery of a rabbit, the kidney, grossly, was pale or dull gray in color, though normal in size and shape. Microscopically, it showed generalized necrosis. In rats, the kidneys atrophied to one-half size in seventeen days.

Crushing injuries are followed by fibrosis in proportion to the degree of elements destroyed. Where scar formation is at all extensive, shrinkage is considerable, and there is little evidence of regeneration of kidney units.

The area of destruction produced by the coiled spring wire was permanent, of course. Fibrinous exudate quickly covered the wire so that it could be felt plastered against the posterior abdominal wall.

Ligation of the ureter at any level was followed by immediate dilatation of the whole portion of the urinary tract above the point of constriction. The kidneys enlarge but they consist of a thin shell incapable of performing any useful function. The blood supply is proportionately diminished but on release of pressure the capillary ramifications are quickly established and hypertrophy of kidney tissue occurs if the organ is called upon to help by reason of a lack of functioning elements in the other kidney. While the one organ is hydronephrotic, the other hypertrophies to do the work of two.

The ureters which were simply crushed showed, seventeen days later, no evidence of constriction or urinary obstruction. More time might show more

reaction, for there was considerable protective scar around the rubber bands used for partial obstruction.

As was stated before in this paper, decapsulation of the kidney was followed by the formation of a fibrous covering much thicker than the original and there is no tendency towards anastomosis between the renal and perirenal vessels.

When removed from its bed and allowed to "float" within the peritoneal cavity, the kidney very soon attaches itself to the surrounding structures and becomes firmly adherent. In our cases the organs lay naturally on the "superior" wall and some ptosis was expected. The secondary attachments were found to be at the site of the old bed and in no instance were the intestines involved.

The animal on which the nephrectomy was performed after one-half the other kidney was destroyed died after eighteen days. This was to be expected since the burden of kidney function fell too suddenly on the uninjured half.

From the work done it is apparent that an equivalent of infarction in varying degrees has been produced. In the instances where portions up to one-half were infarcted the animals showed no effect. When, however, the whole organ suffered ligation of its artery, there was evidence of progressive trouble and the rabbit was killed. The rats gave less evidence of disturbance and, when killed, the kidney was well on its way to complete atrophy. Clinical reports of infarction show that where the damage is extensive the patients usually die. In fact, a survey of the literature⁶ shows that up to 1922 only three cases have recovered. Of course there have been instances of undiagnosed infarction where recovery followed. Our experiments would indicate that the extent of infarction or damage necessary to cause death is that of more than a half but less than a whole kidney. It would seem logical, therefore, to remove a kidney when its blood supply is cut off, or when it is wholly incapacitated by injury. But if most of the organ is viable, or even if a relatively small part retains its blood supply, the chances of recovery of the patient are favorable without nephrectomy.

From the results of these experiments we have made the following deductions: 1. A kidney which by injury has suffered partial loss of function should not be removed, provided there is no complicating infection, stone, obstruction, or the like, to hinder future activity of the vital part. 2. A kidney which has irreparably lost its function, small atrophied kidney excepted, should be removed. 3. Obstruction to any part of the arterial supply of the kidney produces permanent loss of function in the portion affected. 4. Blood supply to the kidney is entirely dependent on the renal artery, even though the capsule has been removed and the organ is covered with adhesions. 5. Ligation of the ureter

produces hydronephrosis, but the kidney undergoes repair after the release of pressure together with a gradual elimination of the other organ. 6. A kidney torn from its bed will quickly become attached firmly. 7. One-half of one kidney will supply the body needs if the burden be gradually forced upon it.

CONCLUSION

The aim of surgery is construction rather than destruction. These experiments suggest a closer adherence to the rule, with reference to surgery of the kidney.

DISCUSSION

DR. DAVID ROSS (Indianapolis): It is rather difficult to discuss the report of a case, or experimental work, because the author has virtually said all that is to be said. He has done certain things and made certain investigations, and I have no right, unless working with him or in similar work I have found things different, to call in question any of the statements that he has made.

I want to say this for the author of this splendid report, that it is very encouraging when young men in the profession early in their careers begin work of this kind. It shows a habit of investigation and study, trying to find something that will throw light on the thing they are trying to do, which is well worth while, and the best time to begin is in the early years of a man's life, when he will form the habit of careful study and of proving all things that are possible to prove.

Lower, in his article in the August *Annals of Surgery*, draws attention to the fact that surgery of the kidney is of special interest because the kidneys, while two in number, belong to that class of glands that are absolutely essential to life, and because of that fact they require a great deal of careful consideration and investigation before surgery should be decided upon. An English surgeon, whose name I have forgotten, made the remark once that no surgeon should approach any case with a scalpel in his hand. Barring accident, where hemorrhage would demand immediate operation, kidney surgery is not emergency surgery. It requires careful study and analysis—testing out the other kidney and finding its condition—and if both are involved, what is to be expected by surgery? There is no getting away from the fact that kidney surgery is and always will be major surgery. Men who are doing it frequently will do it with ease, but it always will remain major surgery because human life is in the balance to a great extent when these cases are under consideration.

DR. WILLIAM S. EHRICH (Evansville): I thoroughly enjoyed this paper, because it brought out many things that I have considered practically as facts without having had them proven.

In the first place, the Doctor brought out the fact that the kidney will probably stand more insult than any other one organ for a limited

length of time. To give you a practical example: Occasionally, in doing abdominal work, the ureter is tied. If the surgeon should go down and try to find the ligature he would simply get into a predicament, but if he does a nephrostomy and waits a reasonable length of time he will find the catgut will absorb and the condition will cure itself, with, perhaps, only a slight stricture of the ureter as a result.

If these conditions exist a long time, there will, of course, be harm done. Take, for instance, a prostate which has caused an obstruction for a long time. You may operate and relieve the patient of the urinary obstruction, but you do not cure the case. Under those conditions, your patient has irreparable damage done from long continued obstruction and infection.

As to tuberculosis, I believe that not all tuberculous kidneys are surgical kidneys. In the first place, the Doctor has brought out that tuberculosis of the kidney is a secondary infection. Is it not better, under these conditions, to immunize your patient against tuberculosis as well as you can and treat him as a tuberculous patient with a kidney lesion?

Sometimes you will be very much pleased to find that you do not have to do surgery if you have made your diagnosis early enough. Suppose you have a surgical condition—you can then operate with more assurance that there will be no post-operative fistulae or other unpleasant sequelae if the patient has been properly treated before the operation.

REFERENCES

- (1) Edebohl, quoted by Morton: *Genitourinary Diseases and Syphilis*, iv:561, 1918.
- (2) Johnson, H. A.: Results of Decapsulation of the Kidney; a study of changes noted in the Renal and Perirenal Tissues of Dogs after Decapsulation. *Ann. Surgery*, xxxvii:605, April, 1903.
- (3) Lower, W. E.: Personal Communication to the Author, September 1, 1923.
- (4) Gibbon, J. H.: To be published in *Ann. Surgery*.
- (5) Hinman, Frank: Experimental Hydronephrosis, *J. A. M. A.*, 80:315, February 3, 1923.
- (6) Aschner, P. W.: Clinical Importance of Aseptic Infarction of Kidney. *Am. J. M. Sc.*, 164:386, September, 1922.

ACUTE INFECTIOUS OSTEOMYELITIS

W. H. STEMM, M.D.
North Vernon

In common with all acute infections, this disease arouses the gravest apprehension in the mind of the medical attendant who realizes the importance of the problem that confronts him. It demands the closest attention, study and care from the general practitioner and surgeon. It is the most common and important inflammatory disease of bone. Its immediate consequences, locally and constitutionally, are so serious, and its remote results so disastrous that there should be no error as to the identity and recognition of the disease.

Various terms have been used to designate

this infection, such as necrosial fever; bone typhus; phlegmonous periostitis; acute suppurative osteomyelitis; bone furunculosis. A comprehensive definition is as follows: "It is an acute inflammatory disease of pyogenic origin occurring principally in the long bones of young people in whom the union of the diaphyses and epiphyses have not taken place. It occurs usually in those who have been depressed by antecedent disease or who have been exposed to inclement weather or injury, and is marked, as a rule, by profound symptoms, both locally and constitutionally. It is liable to be complicated by ulcerative endocarditis, by suppurative ulceration of the serous cavities, and almost always results in massive necrosis of a greater or less area of the affected bone."

The long bones of the lower extremity are involved in 85% of the cases; the femur and tibia, then the humerus, and radius and fibula, in the order named; next the other bones in lesser degree.

The researches of Lexer have thrown light on the frequency of this disease occurring in children and young adults, and the immunity of those who have attained mature growth from these pyogenic organisms that attack bone. In the growing bone he divided the arteries into three groups, which he designated the epiphyseal, the metaphyseal, and diaphyseal or main nutrient arteries, branching to the end of the bone, terminating near the epiphyseal line without pronounced anastomosis with either of the other two groups. The nutrient arteries of the epiphysis being derived from the trunks of the main arteries of the periosteum are terminal arteries, seemingly confined to the epiphysis on the distal side of the epiphyseal line. The metaphyseal group are smaller and shorter and enter the shaft of the bone near the end of the diaphysis, and have the same character of terminal vessels as the other groups. With three groups of nutrient arteries, in the three separate areas of growing bone, with practically no anastomosis between the groups, renders the bone peculiarly liable to the lodgement of bacteria laden emboli. He also found that in older children and adults, the vessels of these groups became smaller as ossification proceeded, while the blood supply to neighboring joints became more abundant.

The staphylococcus pyogenus aureus is the organism most frequently found in this disease. When present in pure culture the case is usually of a very virulent type, with complications of other joints, serous cavities and the endocardium. Frequently the infection is a mixed one of streptococcus and staphylococcus. It frequently occurs as a complication of the acute infections particularly typhoid, scarletina and diphtheria. Or, the organisms may remain latent for years until something occurs to render them active. Being deep seated, away from open wounds, it is evident the germs must be circulating in the blood at the time infection occurs. The habitat of

*Presented before the Section on Surgery of the Indiana State Medical Association, Terre Haute Session, September, 1923.

pyogenic organisms being the skin and mucous membranes, an ulcer or inflamed wound may give entrance to the circulation of the infecting agent that is deposited in the epiphysis.

It is a fact never explained that severe injuries to bone are seldom followed by acute infective osteomyelitis. Even in those who have not reached maturity, fractures and dislocations do not cause this disease. Yet slight local injury, such as a slight blow, sprain or twist in the neighborhood of the affected epiphysis may cause the disease. Perhaps extravasated blood may form a culture medium for the pathogenic organisms. As a rule but one bone is involved; in a small number of cases, foci of infection may be found in other bones. It is conceded that the usual incidence of this disease is near the epiphyseal line, in the spongiosa, or red marrow, and only occasionally commencing in the medullary cavity of the bone, but always beneath the periosteum. The cancellous tissue of the bone and the marrow becomes necrotic, this material being under pressure. It may be forced into the veins and lymphatics, causing germ laden emboli to lodge in other tissues and organs, which in some virulent cases causes a general pyaemic condition. The congested, thickened and softened periosteum over the affected area is loosed and detached from the bone usually in the first forty-eight hours.

As the disease progresses, wider areas of periosteum become detached by the accumulation of pus beneath; this may extend from one epiphyseal line to the other; the nutrient arteries and veins become thrombosed, causing necrosis of the entire shaft of the bone. The extent of necrosis depends, of course, on the amount of the separation of the periosteum, and the extent the disease has spread along the medullary cavity. Rarely the pus breaks through the epiphyseal cartilage into the adjacent joint, with disastrous results not only to the joint but to the life of the patient. There are many variations from this pathology in degree and kind; this synopsis will be sufficient for the purposes of this discussion. After the evacuation of the pus, whether spontaneously or by operative measures, commences the formation of the sequestrum and the regeneration of new bone.

I believe I am safe in saying that 90% of the cases commence with sudden and severe symptoms, the most prominent and constant being a localized pain, with a rapidly developing constitutional intoxication. A distinguishing feature of this localized and painful infection of the bone is an almost total absence of tenderness over the site of infection in the first few hours of the attack. Firm and continued pressure must be exerted to develop tenderness, which persists for some time after the force is removed. The initial pain varies in character and severity. It usually is described as sharp, dull or boring. Aside

from the pain there is no local objective sign or symptom to explain it. After twenty-four to forty-eight hours a slight increase in the circumference of the limb at the infected site is noticeable, but no discoloration of the skin. The pain gradually increases in intensity, unless the affected locality becomes exquisitely tender; so much so, that the slightest manipulation elicits a cry of distress. There is great prostration, the temperature ranging between 103 and 105, with little variation between morning and evening readings, with or without chills, all the symptoms of toxemia rapidly increasing in severity, loss of appetite, dry coated tongue, foul breath, dry skin, occasional vomiting and perhaps delirium. In the severe types of this infection, delirium may exist throughout the attack, assuming the typhoid type as the vital forces become exhausted. In the milder cases the constitutional symptoms of sepsis are pronounced at the end of four days, rarely delayed longer. The local swelling is increased with oedema of the overlying structures, the skin glazed but not discolored. If the pus has broken through the bone there is fluctuation; if near a joint, there may be a serious effusion into the joint causing an arthritis, increasing the severity of the pain, the patient resisting any movement of the articulating surfaces. Additional foci of infection may develop in the same or other bones leading to a mistaken diagnosis of rheumatism.

It is a common observation of writers on this subject that there are few if any infectious processes that can be followed by death from such a variety of causes; that renders acute infective osteomyelitis so dangerous, if not promptly recognized and relieved. The thrombosis of the arteries and veins of the bone, throwing off infected and infecting emboli causing septic pneumonia, purulent pleurisy, meningitis, paricarditis and endocarditis and nephritis, are some of the more serious complications met with. These complications are far more liable to occur in neglected cases, that is, where the diagnosis has not been made, or where improper treatment has been prolonged, in the vain hope of curing the disease with local applications, or anti-rheumatic remedies.

Acute osteomyelitis is one of the diseases of childhood, in which the early diagnosis is of vital importance. Of late years a much better knowledge of the clinical symptoms of this disease prevails, so that a smaller per cent. of mistakes in diagnosis occurs. The disease for which it is most frequently mistaken, is acute articular rheumatism. In the beginning we have almost identical symptoms in the two diseases; severe local pains, high temperature, tenderness, increased white cell count. In acute osteomyelitis the pain is usually sudden and increases in severity until the pus perforates into the cellular tissues.

In rheumatism, the onset is more gradual and the pain less severe. The rheumatic process is *in*

the joint. In acute osteomyelitis, the local symptoms are either *above* or *below* the joint. In the first stages of rheumatism, the joint is puffy, swollen; the skin very often red. In osteomyelitis, no redness and no swelling. In articular rheumatism the joint capsule is tense, occasionally fluctuating, with the greatest tenderness over the articulating surfaces. Osteomyelitis palpation is negative in the early stages, later when the pus appears beneath the periosteum the point of tenderness will be made on one side of the joint, not over it; firm pressure will cause severe pain. Pus from acute osteomyelitis rarely perforates into a joint, then almost never before the third or fourth day; so up to that time an arthritis can be eliminated comparatively, unless the physician is not called to the case until after that complication occurs, when the differential diagnosis of the incidence of the disease is very difficult. Manipulation of an arthritic joint causes intense suffering; immobilizing the joint relieves pain; the opposite is true in acute osteomyelitis. From the foregoing it is evident the diagnosis depends largely on the thoroughness of the physical examination.

The prognosis is always grave. When death occurs it is in the acute stage and is due to a generalized pyemia, with infarcts in the internal organs. The prognosis is rendered favorable by early proper treatment.

The treatment is early, and consists of thorough drainage of the pus, the incision going down through the periosteum to the bone and of sufficient length to include the diseased area, avoiding important arteries and nerves. If the pus has broken through the bone and is beneath the periosteum, large moist hot antiseptic dressings may be all that is required at this particular time. The question of opening into the medullary cavity must be left to the judgment of the surgeon in the particular case, the age and condition of the patient, the location in the bone, and extent of the pathological process largely being the determining factors in deciding this question. Where possible the epiphyseal cartilages should be avoided as injury to this structure will retard bony growth from the injured end. Immobilize the part with splints, so arranged that the dressings can be changed without disturbing the splint. Give such constitutional treatment as the septic condition calls for, putting the patient in a posture that will give good drainage to the pus, relieve pain, keeping the eliminating organs functioning, watching for any complications that may arise in other structures. As soon as absorption of toxins is reduced to the minimum the patient commences to improve, the danger to life is past, and the question of the management of the end results of acute osteomyelitis presents itself.

Then comes the test of judgment and experience in determining when and how much surgery, if any, should be done to the injured bone.

As a rule, up to a certain point, nature is the

best surgeon to separate the living from the dead bone. When partial necrosis has occurred, the line of demarcation cannot be determined in every case, hence many of these patients are discharged as cured, except a small discharging sinus, which, sooner or later gives trouble, necessitating further operative procedure.

In the chronic conditions, following the acute stage, the wise surgeon will be frank with his patients, promising the family no definite cure until time has demonstrated to his satisfaction that all necrotic bone has been removed.

Acute infective osteomyelitis occurs three times as often in the adolescent boy as the girl, due, no doubt, to the greater opportunity for trauma and exposure, and not to sex. A sudden severe pain, above or below a joint, with constitutional disturbance out of proportion to the local symptoms should at once arouse suspicions of a grave bone lesion, especially if this is associated with or follows an acute infectious disease or if there is a history of a slight trauma in an otherwise healthy boy or girl. An early diagnosis, followed by prompt treatment, will diminish the sepsis rapidly, reduce the end results to the minimum, and save the life of the individual.

DISCUSSION

DR. GEORGE D. MARSHALL (Kokomo): The general practitioner comes in contact with these cases first, and the question of diagnosis is certainly very important. If you find a child suffering from acute pain near the joints that you cannot account for, you had better find out what is doing it, because early treatment may save many years of suffering and considerable permanent deformity.

I think the severity of this condition is due, for one thing, to the character of the tissue in which it occurs—always in cancellous bone tissue surrounded by a hard, bony rim. The treatment is the same as in any infection, that is, drainage. The most serious difficulty in securing drainage is that you cannot put your fingers on the focus of infection. But that is not necessary, because the condition always occurs in bone and is not very deeply buried. It is always readily accessible, and drainage can be secured very readily by making an incision down to the bone and drilling holes into the cancellous tissue. As Doctor Eastman brought out last year, in draining abnormal cavities you do not need to get right into the cavity in order to drain it, but the pus will seek a vent where there is the least resistance. By making these drill holes you give an avenue of escape for infection and a chance for recovery, the same as any infection in any other location or tissue.

DR C. B. MIX (Muncie): It seems as though the essayist and discussant lay great stress on early diagnosis. If the periosteum is lifted so you can see the lesion, it would be helpful to use the x-ray in these cases.

A PRELIMINARY REPORT ON THE USE OF QUININE AND UREA HYDROCHLORIDE IN THE TREATMENT OF FISSURE ANI

ALOIS B. GRAHAM, M.D.*

INDIANAPOLIS

There are very few if any surgical lesions of the same size and limited extent that produce such extreme agonizing misery, acute pain and discomfort to the patient, and none in which surgical therapy is attended with more certain success than that of fissure ani, or as it has been more correctly designated—"intolerable ulcer."

In making this preliminary report on the use of quinine and urea hydrochloride in the treatment of fissure ani, it is, as far as the writer has been able to determine, a new method, and its initial use is best explained by a somewhat detailed report of the following case: April 12th, 1923, Mr. B., aged 43, a very active business man, came to my office with the history of an acute, agonizing rectal misery that had been present almost continuously for ten days. For several years he had experienced some rectal discomfort and misery following defecation, but it was as a rule of short duration, and he had never consulted any physician for its relief. His normal habit was three stools daily, which of course aggravated and intensified his rectal symptoms. He further gave the history of the appearance of blood with every stool. The intense pain had caused the loss of much sleep—he was exceedingly nervous and irritable—he had resorted to the use of paregoric in large doses with but slight relief—and he was incapacitated from following his occupation. He was desirous of completing some important business engagements, and stated that, if in any way possible he could be afforded relief for three days, he would gladly and willingly go to the hospital to have done whatever was deemed necessary. A rectal examination revealed a very sensitive chronic fissure ani, or intolerable ulcer, involving the external sphincter muscle, just to the left of the posterior commissure. Its base was acutely inflamed, and its edges presented evidence of marked induration. A sentinel pile was present, and the sphincter muscles were in a pronounced state of spasticity. In addition, three slightly eroded internal hemorrhoids, which were probably responsible for the hemorrhages reported, were diagnosed. Here was a case of chronic fissure ani in which surgical interference was clearly indicated; but, in an effort to give this patient some temporary relief, the writer decided that the use of quinine and urea hydrochloride, because of his experience with its prolonged anesthetic properties, might possibly secure the much desired result in this case. In not more than thirty seconds following the treatment with this drug the rectal pain and discomfort had disappeared. Two minutes

later the fissure or ulcer was practically insensitive and painless to the touch of a probe, and the spasticity of the sphincters had subsided so that the lubricated index finger could be introduced easily into the anal canal with no resulting discomfort. Three days later the patient reported that he was not conscious of any rectal symptoms, not even experiencing any rectal uneasiness following defecation, and as far as he knew he was well. An examination of the fissure revealed some evidence of its healing. No discomfort followed an application to the ulcer of a 50 percent solution of silver nitrate. The patient's report at the end of ten days and two weeks was the same—no rectal pain or even discomfort, and the healing of the ulcer was progressing nicely. An examination made four weeks following this treatment showed that a complete cure of the fissure had been secured. Small hemorrhages, however, continued with every stool, and on May 26th operation for the removal of the internal hemorrhoids was performed. Except for the excision of the sentinel pile, the fissure or ulcer was healed and demanded no further treatment. A rectal examination made June 26th revealed no evidence of any rectal pathology.

The technic employed in the treatment of this case of fissure ani was as follows: The patient was placed in the left lateral position, with the left leg extended and the right leg well flexed. No shaving or scrubbing of the parts was done, the only preliminary preparation being the application of an alcohol compress. With a small glass syringe to which was attached a $\frac{5}{8}$ inch, 27 gauge, sharp pointed needle, 15 minims of a freshly prepared 5 percent aqueous solution of quinine and urea hydrochloride was injected slowly below or beneath the fissure in such a way as to raise it up and so that, as Hirschman states, "the fissure is resting on a water bed." The point selected for the insertion of the needle was not more than $\frac{1}{16}$ th of an inch below the sentinel pile. Two or three minims of the solution were injected underneath the skin, and the remaining 12 minims were injected as the needle was introduced slowly just beneath and slightly beyond the distal end of the fissure. The raising up of the fissure or ulcer throughout its entire length was easily perceptible. Rather severe pain was experienced by the patient from the beginning to the completion of the injection of the solution. It was not, however, of more than 30 seconds duration, and upon the withdrawal of the needle local anesthesia was complete.

Up to August 1st, 1923, this treatment, with practically no modification in the technic, except a slight increase or decrease in the number of minims of the solution injected, has been employed in 30 cases. All were adults—20 were males and 10 were females. In 28 cases the fissure was just to the left of the posterior commissure—in one case it was one-half of an inch to the left of the posterior commissure, and in one case, a female, it was just to the right of the anterior commissure.

*Presented before the Section on Medicine of the Indiana State Medical Association at the Terre Haute Session, September, 1923.

A sentinel pile in 22 cases—moderately large skin tags in 12 cases—enlarged or hypertrophied papillae in eight cases—and a large rectal polypus in one case—were the complicating pathology diagnosed. While internal hemorrhoids were present in all the 30 cases, in all but three cases they were in a quiescent state, and were practically symptomless. All were chronic fissures or intolerable ulcers, the relief and cure of which, previous to the quinine and urea hydrochloride treatment, could have been secured only by radical surgical interference, and the majority of these patients were ready and willing to go to the hospital for any treatment that would afford them relief from their intense rectal misery.

Immediate and complete relief of the rectal symptoms, and a cure of the fissure, was effected in 27 cases—two patients reported a return of rectal symptoms of moderate severity six weeks following the treatment—and a complete failure occurred in one case complicated by a large rectal polypus, and the presence of much dense cicatricial tissue in the posterior anal canal. A single injection only of the 5 percent solution of quinine and urea hydrochloride was used in each of these 30 cases. This treatment, followed by advice to the patient as to stool evacuation, secured such satisfactory results in the first six cases, that the writer in the other cases excised sentinel piles, hypertrophied papillae, and complicating skin tags when present—curetted the base of the ulcer, and in some cases even incised partly the external sphincter muscle at the point just beneath the base of the fissure—with no resulting discomfort. This additional treatment, together with the use of local applications, has undoubtedly assisted in securing a complete cure of the fissure in the majority of these cases.

The only disadvantage of the use of quinine and urea hydrochloride in the treatment of chronic fissure ani is the rather acute and intense pain produced by the injection of the solution. Its duration is not more than 30 seconds, and local anesthesia is complete and lasting with the withdrawal of the needle. It has not as yet been determined definitely as to whether this pain is the result of tissue distension or to some irritating effect of the drug. It is possible that both are causative factors. It has been found that the more slowly the solution is introduced, the less acute is the resulting pain—but as yet I have been unable to render it a painless treatment. The end results secured to date have proven so satisfactory as to cause me to hesitate in attempting to make any changes in the technic employed in the cases reported. It may be that a much weaker or a smaller quantity of the solution will secure equally good results. Experimental studies are necessary for the determination of these questions. Patients with fissure ani or intolerable ulcer desire relief as quickly as possible from their rectal misery. The treatment described by the writer will secure this much desired relief quicker, and much more

satisfactorily to both the patient and the operator than any other known method of treatment.

The advantages of the use of quinine and urea hydrochloride in the treatment of fissure ani may be summarized as follows:

1. It is devoid of all danger.
2. The technic is so simple and easy as to make its use available to all surgeons and many physicians.
3. Its anesthetic effects are so pronounced and prolonged as to eliminate the use of anodynes of any kind.
4. It not only relieves the patient immediately of his rectal misery, but, as has been the writer's experience, a complete and painless cure may be effected in the majority of cases.
5. It does not necessitate hospitalization of the patient.
6. It not only does not incapacitate the patient, but enables one already incapacitated to resume or follow his or her occupation.

In conclusion, the writer, in presenting this preliminary report on the use of quinine and urea hydrochloride in the treatment of chronic fissure ani or intolerable ulcer, would not have his hearers infer that this new method of treatment is to be accepted as a panacea for all cases; nor would he ask that it replace the older and well known radical surgical methods of treatment that have been attended with such certain successful results. He would, however, recommend that, instead of resorting to the use of opiates and various anodynes as is practiced so frequently, this new method of treatment be employed in every case if for no other reason than that of securing immediate and complete relief of the rectal symptoms. If this treatment fails to effect a cure, surgical interference is clearly indicated. While in the majority of the writer's cases this treatment, supplemented by local applications, has resulted in a complete cure of the fissure, it is the immediate and prolonged local anesthesia secured with the use of this drug that prompted a presentation of this preliminary report. Further experience with this treatment may subdue my present enthusiasm and optimism as to the possible end results which can and have been secured; but even if such occurs the writer shall continue its use for the immediate relief of the rectal symptoms, appreciating fully, that in case of failure to effect a cure, surgical methods of treatment are always possible and available, and as a rule are attended by successful results. It is very essential that we do not overlook the fact that fissure ani is the result of trauma by the passage of unusually large and hard stools.

Therefore, following any treatment, surgical or non-surgical, it is of the greatest importance that careful attention be given to stool evacuation if successful end-results are to be secured.

DISCUSSION

DR. J. W. RICKETTS (Indianapolis): I feel sure that I voice the sentiment of those present

when I congratulate Dr. Graham for presenting us with this unique way of handling what has hitherto been a difficult problem to solve by means of local application and internal medication. And where these remedies have failed—as they usually do—and surgical intervention is sought, the use of a general anesthetic is not always desirable, as cases of fissure ani are usually the sequela of constipation or diarrhea; either of these may be associated with a systemic disease such as tuberculosis or typhoid fever, where a general anesthetic is to be avoided if possible. Even in the cases where there is no danger to be feared from a general anesthetic it is certainly to the advantage of the patient to use Dr. Graham's method. It avoids expense, which is no small item, saves time, is accessible even to the busiest man, and eliminates the element of fear that most people have of operations.

An interesting feature in the application of quinine-urea hydrochloride in this respect is the duration of anesthesia, which in the majority of cases lasted from eight to ten days. It is to this fact that the method owes its success as it permits the sphincter to remain relaxed, long enough for the ulcer to get well along in its healing process.

I should like to suggest that in carrying out Dr. Graham's technique it would be well to have an assistant to keep the fissure exposed, so that the operator can see to direct his needle. The minute that the needle pierces the skin and the solution begins to enter the tissue, the pain causes a contraction of the sphincter, which draws the fissure up into the anal canal, out of vision. You are then unable to determine the proper depth in order to get the water bed and the proper length in order to reach the distal end of the fissure—as Dr. Graham has suggested. Then, too, if your field is not well exposed, you may penetrate the base of the ulcer and your solution will escape into the rectum instead of infiltrating the tissue.

DR. GEORGE R. DANIELS (Marion): I certainly wish to commend Dr. Graham for this mode of treatment. I would say that where we have hemorrhoids with strangulation we always have been taught that we could not inject external hemorrhoids; that is, with the old carbolic solution. You can inject with the quinine solution with impunity, rendering the external pile absolutely pain-free, and excise it just as you would under general anesthesia. I have never seen any bad results from this. You can use the solution one-half the strength mentioned and get good results. With internal hemorrhoids, do not overlook any of them, and you need not overlook any of them with a 2.5 percent. of 5 percent. of quinine. The chief point is that it is ideal for the treatment of the fissure ani. For the first prick of the needle or in a nervous patient you should use morphine at the beginning, just the same as you would in general anesthesia, or if you have one that you

think is liable to talk about you after you have treated him I would advise you to use a little hyoscin.

DR. JAMES A. CRAIG (Greenwood): It is not my purpose to start any controversy between the sections on medicine and surgery, but when I noticed this topic on our program I wondered if "fissure ani has been and continues to be a surgical condition." I am hardly able to reconcile that statement with the success that is indicated by the results that have been reported to this meeting, and I listened with considerable interest to learn, if possible, the theory upon which the practice is based; I do not believe that it was covered in the paper, but it probably will be covered in the closing discussion.

I have used the method successfully in a good many cases. As to the element of pain incident to the initial introduction of the needle, I have found in cases where it is possible to introduce the needle above the margin of the mucous membrane, the pain may be much alleviated by placing a pledget of cotton saturated with a fresh solution of cocain-hydrochloride in that region. This practically relieves all pain incident to the introduction of the needle, and for that reason I think the pain is due more to the distension than to the introduction of the quinine urea solution.

The essayist did not say what caused the ulcer. The fissure is produced by traumatism, but why does it not heal as do other lesions of the mucous membrane in other localities? One theory is that it is due to constant irritation. It is a fact that the tissues are extremely sensitive, and it is believed that the constant irritation continues the fissure. If that is true we are inclined to think that the cure results not from the styptic action or shutting off of the circulation, but from the fact that you have a prolonged anesthesia which gives the ulcer an opportunity to cure itself. I think the results indicated warrant us in becoming surgeons, if it is a surgical procedure, and if it is not we should adopt it for ourselves as practitioners of medicine.

DR. A. B. GRAHAM (Indianapolis) (closing): In making this preliminary report it was not deemed necessary or advisable to discuss the etiology of fissure ani. While it is a surgical disease I am very glad of the opportunity to make this report to this section. The treatment with quinine and urea has proven most successful in the majority of cases reported, and the technique is so simple as to make it available to most physicians.

The preliminary applications of cocaine to the fissure, as suggested and practiced by Dr. Craig, is not to be regarded as a safe surgical procedure, and I should hesitate to employ it in these cases. The results secured to date in my own cases have been excellent, and I recommend to you for serious consideration the treatment of fissure ani which has been described in this preliminary report.

THE JOURNAL of the

Indiana State Medical Association

Devoted to the Interests of the Medical Profession of Indiana

ALBERT E. BULSON, JR., B.S., M.D., F.A.C.S.
Editor and Manager

Office of Publication, 406 W. Berry St., Fort Wayne, Ind.

FEBRUARY, 1924

EDITORIALS

THE URGENT DUTY OF PHYSICIANS NOW

It is apropos to review at the beginning of the year, certain conditions which relate to the Indiana State Medical Association. The committees are the motive power of the Association and the Association's success largely depends upon their efforts. Heretofore some of the members have had no conception whatever of the duties to be performed. Much of the work was left to the chairman and in some instances he made a provisional outline and presented it to the members of the committees for endorsement. Some of the committees did not hold a meeting during the year. This condition of affairs does not reflect credit upon the Association nor the members of a committee representing it. It is a slothful drag with nothing of any moment accomplished. A member of a committee in name only is as worthless as the antiquated method of reading a paper by title only before a medical society. But why dig up the past; just let the dead bury the dead and commence anew.

The members of each committee for 1924 are persons of rare ability and especially fitted for the work which they are to do. Each member is especially competent, has had some experience, and has an interest in the welfare of the Association. The president is very optimistic and has the fullest confidence that each committeeman will realize the responsibility upon his shoulders. The chairman should call a meeting of his committee and each member should be present. The possibilities of some of the committees are far reaching and each member should study the duties as carefully as if he were the only member, thus making it a personal matter though he is an integral part of the whole. Even at this early date the enthusiasm of the members of the Association seems to be at high ebb and wholesome work unquestionably will be done with a greater promise of success than heretofore.

The question of organization is an important one. Many of the medical societies are working as a unit for their own good and that of the community in which the members live. It is very well and easy too to talk about giving the people of the United States information concerning what is being done in medicine. This is one story and to educate the people in the immediate vicinity

of a society is another. The cults are taking the attitude of a swarm of bees while some of our societies are idly sleeping. It is impossible to prophesy what will happen while we are waiting for the cults to dig their own graves. Action is needed and needed now. If the members of a county society will work together and give the right kind of information to the people of their community medical pretenders will be tolerated no longer. If physicians bask in the sunshine of content, putting forth no effort, the ignorant monte-bank in medicine will by misrepresentation gain the confidence of the people who will not realize the effect of the viper-like poison till some future period. For a time the inactivity of physicians will cause them to suffer a loss of the wholesome respect which they now possess. If the people in every community are properly informed they will refuse to take the advice of men who profess a knowledge of medicine obtained in ninety days, costing but a few paupers' dollars, but will appreciate the worth of scientific medical men whose education required seven years at a cost of a number of thousand dollars in order to serve honestly the people by practicing their profession. The people in every community have been kept in ignorance concerning medicine. They are willing to be educated and anxiously seek light. Members of the medical profession are largely responsible for the popularity of the cults. Now is the time to wake up and be doing. If a realization of these things will come home to the members of the medical profession, the bills before the legislature which relate to scientific medicine will be passed and not leave those representing scientific medicine in the position of laughing stock.

SAMUEL E. EARP,
President Indiana State
Medical Association.

ACUTE COLDS

Every doctor is consulted more or less frequently by patients suffering from a repetition of acute colds, generally starting in with what commonly is called a "cold in the head," and oftentimes the question is asked, "What can I do to prevent a repetition of these colds?"

As a matter of fact our forefathers suffered from acute colds just as people do nowadays, but there is not a question of doubt concerning the increased frequency with which acute colds occur in this day and age. There is abundant reason for this if we analyze the conditions surrounding our present mode of life. Probably no one will dispute the statement that acute colds are a manifestation of infection, and unquestionably acute colds are highly contagious, spreading rapidly through a family. However, there are certain predisposing factors which overwhelm the natural defensive mechanism of the nasal mucous membrane and aid in the production of a cold. Fore-

most among these is exposure to cold and dampness, especially getting the feet wet while the system is in a rundown or debilitated condition. That exposure to cold alone is not a direct factor is shown by the freedom from colds enjoyed by those living in outdoor sanatoria, even during extremely low temperatures, and by the practical immunity of those dwelling or making expeditions in the polar regions.

Numerous authorities are of the opinion that another factor in the production of colds is the sedentary life of those who live in cities, accompanied as it usually is by over-eating, little exercise and a general failure of elimination, this being enhanced not only by the overheated houses, but in the extremely dry and vitiated air which prevails in the ordinary home. When we take into consideration that expired air under normal conditions is saturated with moisture, and that the total amount of water secreted and necessary to moisten the nose is some twelve to eighteen ounces per day, it can be understood how an excessive strain is placed on the blood vessels of the mucous membrane of the nose when the inspired air is as dry as found in the average home heated in the ordinary way. The remedy for this is obvious. Our residences and our office buildings should be supplied with moisture to take care of the overheated and dry condition that generally prevails. This may be accomplished in a variety of ways, but the simplest manner is through inconspicuous water-filled receptacles which may be placed under registers or at the back of radiators. Plants or ferns that are kept well watered often aid in relieving some of the dryness of atmosphere in homes.

Where frequent and persistent colds occur in children one always should investigate the oropharynx and nasopharynx, with the probability of finding there hypertrophied tonsils and an overabundance of adenoid tissue.

For the adult who is particularly susceptible to

colds, prophylaxis demands attention to several things, among which we may mention: Careful attention to personal hygiene, sufficient sleep, relaxation exercises, combined with correction of pathological conditions in the upper respiratory tract, such as nasal obstruction, diseased tonsils and adenoids, etc.

For the person who lives a sedentary life hygienic measures become of especial importance. The shower, or sponging with cold or tepid water, followed by brisk rubbing of the entire body with a rough towel done daily, best in the morning, is excellent for stimulating capillary action of the

skin. Sufficient clothing for comfort always is necessary, and a good grade of light-weight all-wool underwear is the best possible aid in preventing sudden changes of body temperature during the cold damp days of fall, winter and spring. When going out of doors extra outer clothing should be added, but this should not be heavier than required for actual comfort, as anything more tends to overheat the body and increases the liability to chilling. Generally speaking, attention to warmth and dryness of feet is more necessary than anything else in the way of protection from cold and dampness, but weather in itself, no matter what the season, can be borne by

practically every person if suitably dressed for it.

Much has been said about exercise, and it is just as necessary for the health and the well being of individuals as is food, but there is much foolish advice as to the kind and amount of exercise to be taken. Generally speaking, those people who lead sedentary lives and need exercise should be advised to take the kind of exercise that is most pleasing to them. This may mean bicycling, golf, gymnasium work, tennis, or horse-back riding, but when all is said and done, brisk walking is as good as anything.

Of late years much has been said concerning the prophylactic treatment with stock vaccines, and while investigation as to the efficacy of these

Physicians of Indiana, Please Note!

(See page 24 of the January issue of this Journal)

We Are Moving Forward

Our committee would appreciate it if those county societies which have not yet done so would send in the names of their Committees on Legislation.

FRANK W. CREGOR, M.D.

725 Hume-Mansur Bldg. Indianapolis, Ind.

Chairman Committee on Public Policy and Legislation

vaccines when tested on large groups of individuals, as in the army training camps, failed to show the beneficial results claimed by individual enthusiasts, yet they may be tried in the hope that the results in even a limited number of cases will justify employment of the treatment.

However, in the final analysis careful attention to the habits and daily lives of patients affords the safest and most efficient prophylaxis.

PREVENTABLE MORTALITY FROM DIPHTHERIA

That a large percentage of the deaths from diphtheria occurring in New York State need not have resulted is the inevitable conclusion to be drawn from an analysis of the first 500 such deaths in 1923, made by Dr. Bertrand E. Roberts, Epidemiologist of the New York State Department of Health, the results of which were recently published in the *New York State Journal of Medicine*.

Dr. Roberts points out that delay in the administration of antitoxin is the greatest cause of death from diphtheria, stating that if it is administered in adequate dosage on the first day of the disease, with proper surgical treatment in laryngeal cases (membranous croup), recovery nearly always takes place. In the series of cases analyzed, in only 15% of them was a physician called on the first day of illness, and in only 32% was a physician called on the first or second day, leaving more than one-half in which there was lack of medical attention until the third day or later. Such delay is, of course, the fault of parent or guardian. However, the physician is not altogether blameless for the delay in administering specific treatment; this is shown by the fact that in about 40% of the cases the doctor did not give antitoxin at his first visit, and in 53 cases, or 11% of the total, antitoxin was not given at all. In some cases of doubtful diagnosis, seen on the first day of illness, there may be some excuse for delaying treatment until confirmation of the diagnosis is secured from a laboratory. Such a condition of doubt is rare after the first day, yet there were 159 instances in which a physician did not see the case until the second day of the disease or later, but in which he waited at least one day longer before giving antitoxin. According to Dr. Roberts it is unjustifiable to delay treatment while awaiting a laboratory report on a culture if there is even a suspicion that the patient may be suffering from diphtheria. Even if one could get an immediate laboratory report, it is never safe to rely upon it to disprove the diagnosis of diphtheria, for in this series of fatalities there were negative first reports in 15% of those from which laboratory data were available.

Another cause for fatality emphasized in this report is insufficient dosage of antitoxin even though the case was seen early. Of 161 patients seen by a physician on the first or second day of

the disease, only 57 received a possibly adequate dose of antitoxin. Dr. Roberts states furthermore that antitoxin for remedial uses should always be injected either directly into the veins or deep into the muscles and not just under the skin, the effect being from four to ten times as rapid by the former methods.

Three hundred and thirty-six of these 500 deaths were due either to interference with breathing (choking to death) from laryngeal involvement or to heart complications; that early use of antitoxin in sufficient dosage will prevent these complications is well-known to the medical profession. The remaining 164 deaths were due to one or more of various other complications, most of which are similarly preventable. The deaths due to heart complications are not infrequently due to failure to keep the convalescent patient at rest, usually contrary to the physician's orders.

In the opinion of Dr. Matthias Nicoll, Jr., State Commissioner of Health, "this analysis of diphtheria deaths tends to confirm the conclusion of previous observers that the death rate is practically nil when adequate treatment is given on the first day of the disease. The number of deaths from this disease will be enormously reduced when parents are brought to a realization of their responsibility to secure prompt medical attention whenever one of their children suffers with a sore throat or croup, and when every physician administers antitoxin in sufficient dosage whenever there is the slightest suspicion that a child has diphtheria."—*Health News Service, New York State Board of Health*.

LIFE INSURANCE EXAMINATIONS

Life insurance premiums are too high. There are three reasons for this: First, the companies are not careful enough about taking risks; second, it costs too much to get the business; and, third, the overhead expense of salaries, advertising, rents, and other expenses is too high. All of these can be remedied.

The selection of good risks is a matter of painstaking attention on the part of the medical department. No matter how competent the medical director and his assistants may be, they are not able to change the character of the risks offered except through the medium of a medical examination the extent and character of which they are not able to control at all times. Many a time a life insurance company gets a bad risk through a favorable report on the part of an incompetent examiner. In a year or so the company sustains a heavy loss, and all because of a poor examination.

If the life insurance companies are to eliminate bad risks they must eliminate bad medical examiners. If the companies want trustworthy medical examinations they will have to appoint trustworthy examiners, demand expert medical services and pay an expert fee for the same. For

the most part the companies get just what they pay for, and they lose a lot of money that would not be lost if all of the medical examiners were of better quality. By reducing the poor risks the actual cost of insurance also would be reduced, and it is worthy of comment that the companies that are most particular about their medical examinations are the ones that are handling insurance most economically and returning most to the policy holders through a lowering of rates or through dividends.

This whole question is worthy of consideration in connection with the efforts of our Association to have proper recognition in insurance matters. Why not insist upon fair remuneration for such important work as life insurance examinations and then gives the companies the expert service to which they are entitled? Perhaps this would mean some discrimination in the appointment of medical examiners, for a ten dollar examination fee requires a ten dollar man to make it, but in the end it would pay the insurance companies and redound to the credit of the medical profession.

TURN SWOLLEN FORTUNES INTO BENEVOLENCES

It is said that Henry Ford never donates anything to charity, and that his motto is "Give people an opportunity to work and not to shirk." Not a bad motto to follow, but does Henry ever stop to think that in less than thirty years he has risen from poverty to the richest man in the world, and that his money could put many more people at work at something more worth while than making "flivvers," even admitting that the little tin buzz wagon bearing his name has brought joy, convenience and even profit to millions of people? Think of the sick and afflicted who could be helped through more hospitals, sanatoria, parks, play grounds, and improved housing conditions if Henry "cut his belt" a little and gave such enterprises even a little of his time and wealth. Then it is reported that Henry takes much pride in the thought that he has been able to add to the comfort of millions by producing for them a cheap car, a car that can be owned by the masses (and some asses). Does Henry ever stop to think that even in that philanthropic work he could have accomplished still more had he not been so avaricious in the way of profits, with the attending result of piling up million upon million in his bank accounts? It is said that Henry could sell his "flivvers" at one hundred dollars each and still pile up a bank account that would make the average comfortable man's bank account look like a jitney fare in comparison, but anyway we would like to see Henry and every other enormously rich man put excess profits working for humanity in a worth while way. Rockefeller has not made a noticeable dent in his fortune through gifts to various philanthropies but he deserves praise for what he has done, now running into an expenditure

of hundreds of millions. Perhaps Henry doesn't believe in following examples, but some day he may be sorry that he hasn't turned his money and his talents into some benefit for humanity in addition to that which comes from making "tin Lizzies." Of course we know that "advice is cheap" and many a man resents being told what he is to do with his money, but we do force him to pay taxes for the benefit of others, and if Henry keeps his ear to the ground he can hear advice that if voluntarily followed will redound to his everlasting credit, and perhaps sidetrack the growing sentiment that laws should be enacted to prevent the retention of such enormous private fortunes as that held by him. We don't object to any man's ownership of a few million dollars, say ten or twenty, in order that increased income will afford a little extra pin money, but beyond that the fortune is potentially a menace to society. Neither Ford nor his heirs can spend legitimately even the income from the hundreds of millions in the Ford fortune, no matter how many private yachts, summer cottages or extra glasses of pink lemonade are purchased, and the temptation to use great fortunes as a power for evil is not always resisted. Incentive and ambition will not be stifled, nor will threatened prohibitive legal restrictions as to the amount a man may own be imposed if it is the general policy of our multimillionaires to return a good portion of their earnings to the public in the form of benevolences of various kinds.

PROPOSED REDUCTION OF TAXES FOR MEDICAL MEN

Many of our medical societies are sending petitions to the Indiana representatives and senators in Washington asking for relief in the matter of taxes imposed upon medical men and especially the tax for the privilege of prescribing narcotics, the tax upon the earned income of a doctor which should be less than the tax upon unearned income, and the present unfair discrimination in which physicians are not permitted to deduct from income tax the expenses incurred in attending medical conventions or clinics. We earnestly urge that every county medical society in the State send a petition to Washington concerning these matters and as a guide we publish the petition that has been prepared and sent out by the Vanderburg County Medical Society, which is as follows:

"Whereas Congress is contemplating a reduction of the Income Tax, we, the medical profession of Vanderburg County, Indiana, appeal to our congressmen's sense of fairness and justice to remove the tax assessed against each physician of \$3.00 for the privilege of prescribing narcotics. The Harrison Narcotic Law compels physicians to do a great deal of uncompensated work for the Government, and imposes a penalty on him in the way of taxes for the privilege of doing it. This is not required of any other class of citizens and we consider it unjust.

"We also endorse the proposed reduction of taxes on earned incomes which, we believe, should be subjected to less tax than the tax upon incomes from invested capital.

"We also urge Congress to arrange the Income Tax Law so that physicians can deduct expenses incurred in attending medical conventions and clinics from net incomes when making out schedules for Income Tax. These medical meetings and clinics must be attended if one wishes to be in a position to give the public in time of affliction the best there is in the profession. While a physician is away attending these meetings or clinics his income from his profession ceases entirely.

(Signed)

VANDERBURG COUNTY MEDICAL SOCIETY,
ROBT. W. VIEHE, M.D., President.
PIERCE MACKENZIE, M.D., Secretary.

Committee:

Wm. R. Davidson, M.D., Chairman.
A. M. Hayden, M.D.
A. F. Clements, M.D.

IMPORTANT ACTIONS OF MEDICAL BOARD

In this number of *THE JOURNAL* we publish an abstract of the minutes of a recent meeting of the Indiana State Board of Medical Registration and Examination.

We particularly desire to call to our readers' attention the resolution passed by the Board requiring that candidates for medical licensure in the State of Indiana must be naturalized citizens of the United States. During the last few years the Board has received applications for licensure from many non-naturalized men, many of whom can not speak the English language. Some of them are highly educated men, but many of them soon get into questionable practices, as past experiences prove. The action of the Board is therefore most commendable.

We regret that the Attorney General has advised the Board that it probably would not be valid to recognize the certificate of the National Board of Medical Examiners in lieu of an examination by the Board. In our opinion the Medical Practice Act should be so amended that it will be possible to accept the certificate of the National Board.

The Board is to be commended for its stand concerning the co-called junior colleges which pretend to give pre-medical courses, mostly applying to the practice of osteopathy. As one member of the Board says, "There are enough schools now which give the preliminary medical course, and it is quite evident that recognition in Indiana was desired because there are so many Indiana applicants wanting to take the course."

During the World War the Boards of Medical Examination of several of the states adopted a resolution to the effect that those medical men with war service records who could not qualify for licensure on account of pre-medical requirements might be properly licensed, their service record being accepted as an equivalent of pre-medical qualifications. It was a patriotic measure and Indiana fell in line with other states in adopting it. However, as was thought by many at the time the resolution was put into effect, the action was a case of misguided patriotism, and at a re-

cent meeting the Indiana Board rescinded the resolution.

The Board has gone on record as maintaining a policy to revoke or deny certificates of license to practice medicine in the State of Indiana to physicians who have been found guilty of violation of the Harrison Anti-Narcotic Act. Already five physicians who have been convicted of infractions of the narcotic law have been cited to appear before the Board and show cause why their licenses should not be revoked and cancelled, the Board to procure the transcripts of the court records in each case as evidence in the hearing. This action of the Board may arouse some criticism on the part of certain members of the medical profession, and yet the action of the Board is a perfectly proper one. It is not the purpose of the Board to show any discrimination, and yet a consideration of all of the facts in the case will be in order before radical action is taken.

We especially desire to commend the Board for its newly created policy of making public its important actions, and we welcome the condensed report of the proceedings of the Board for publication in *THE JOURNAL*.

EDITORIAL NOTES

DEAR DOCTOR:

THE JOURNAL and the Cooperative Medical Advertising Bureau of Chicago maintain a Service Department to answer inquiries from you about pharmaceuticals, surgical instruments and other manufactured products, such as soaps, clothing, automobiles, etc., which you may need in your home, office, sanitarium or hospital.

We invite and urge you to use this Service.

It is absolutely FREE to you.

The Cooperative Bureau is equipped with catalogues and price lists of manufacturers, and can supply you information by return mail.

Perhaps you want a certain kind of instrument which is not advertised in *THE JOURNAL*, and do not know where to secure it; or do not know where to obtain some automobile supplies you need. This Service Bureau will give you the information.

Whenever possible, the goods will be advertised in our pages; but if they are not, we urge you to ask *THE JOURNAL* about them, or write direct to the Cooperative Medical Advertising Bureau, 535 N. Dearborn St., Chicago, Illinois.

We want *THE JOURNAL* to serve YOU.

HAVE you paid your medical society dues?

THE newspapers announce that Coué landed in this country with a smile on his face. Who wouldn't smile at a vision of the American dollars awaiting him?

THE combination of organization and government cooperation for cheap medical services which had a trial in England has proved disastrous. Both the services and the compensation is inadequate, and radical changes are demanded. Thus another state medicine bubble bursts!

YE Gods! Will the sun ever again shine two days successively? No wonder the railroads are taxed to capacity in carrying people to sunny climes. What a terrible thing it is to be a poor doctor instead of a well-to-do brick layer or a disgustingly rich plumber!

THE secretaries of several county medical societies seem to be "live wires" and we look for some good results in consequence. As we often have said before, the life of a medical society depends upon its secretary and he can either make or break the society.

MANY newspapers are carrying large advertisements announcing that snake oil will cure deafness. What are better business bureaus doing to stop such swindling of the public and why don't the newspaper associations make some effort to suppress such glaringly fraudulent advertising?

ANOTHER report from an Indiana town says that for the first time in many years the town is without a doctor and advice is asked as to how to fill the vacancy. That is easy to answer. Have the people of the town guarantee a living income for a doctor who locates there, and then keep their medical patronage at home.

IT is reported that a North Carolina medical man, having a consultation practice covering a large territory, now visits his patients by aeroplane and finds the practice economical and satisfactory in every way. How long will it be until we will have "air flivvers" and every farmer will have a landing field or platform for "Doc's flivver" as well as his own?

THE Westinghouse Company announces the discovery of a new x-ray tube for therapeutic use which has more penetrating power and less irritating rays than afforded by any other x-ray tube on the market. As a matter of fact x-ray work is only in its infancy. We look for some radical changes in the near future concerning the efficiency of various electric potentialities.

THIS number of THE JOURNAL will go to all those who were members of the Indiana State Medical Association during 1923, but the March number will go to only those who have paid their State Association dues for 1924. No more leniency, for the post office department doesn't permit it, and anyway the person who is delinquent in the payment of dues is not entitled to any leniency.

A DOCTOR writing from Germany says that there is a good deal of misrepresentation in this country concerning want and suffering in Europe. He says that there are war profiteers in Germany who should disgorge before America sends any more money there as a pure charity offering. However, when the German people get started, they will take care of their profiteers in a drastic fashion, and in the meantime our sense of justice should compel us to help them to overcome any real suffering for want of the necessities of life.

A FEW years ago medical men were preaching about the evils attending the wearing of tight fitting corsets. Now they are preaching about the dangers of tight bandaging to reduce. They might as well give it up as a bad job, for women as a class will resort to anything that they think will improve personal appearance, no matter how much the medical men preach against the injurious practices adopted, and no matter what the ultimate consequences.

THE first of this month was the time limit for paying dues without penalty. However, there are quite a number of delinquents, and they ought to be ashamed of themselves for not renewing their membership on time. They should remember that as delinquents, they are not entitled to the benefits of the Association, and under no consideration can they have the benefit of the medical defense feature for any cases arising during the time that they are delinquent.

IN the death of Dr. L. Emmett Holt the world has lost one of the greatest authorities on diseases of children. As an author and teacher Dr. Holt made an enviable name for himself among medical men, and his book on, "The Care and Feeding of Children," written for the laity and running through many editions has been a guide for hundreds of thousands of mothers. For the medical profession his work on "The Diseases of Infancy and Childhood," is a classic and long will remain accepted authority.

SPEAKING of taxes, don't the lawmakers down in Washington with their opposition to each others' plans put you in mind of the old time doctors who proverbially never agreed? The Republicans want one kind of taxation but the Democrats will not approve it because it is Republican, and vice versa. Why not do like modern doctors, have a consultation and after analyzing all the features of the case, come to a conclusion that all can agree upon and then act in the interests of the patient, which in this instance is the suffering public?

IT may not be generally known that a part of the funds of the State Board of Medical Registration and Examination are turned back into the general fund of the State to be used for general purposes, perhaps for the prevention of hog colic or the building of a bridge over pig creek, and that in consequence of this raping of funds our medical board is not able to conduct some of the work assigned to it in the way of enforcing our medical practice act. As a matter of simple justice the fees paid in connection with our medical practice act should be utilized in the enforcement of the act. There is altogether too much juggling of the state's finances and it is time to have a revision of the policy.

RUBBING the skin all over the body with a soft brush and in a cold room until a mild hyperaemia is produced is proposed by some medical men as a substitute for the cold bath or the cold shower which so many people dislike. It is pointed out that the patient gets exercise while at the same time stimulating circulation and elimination, and that if done every day it makes one healthier and quite immune to the common cold. This dry, cold air bath, as it is misnamed, is not intended to take the place of the hot soap and water bath for cleanliness but is a health builder and rejuvenator.

DURING the war practically everybody was induced to buy government bonds. Perhaps nothing has done so much to develop the saving habit among American people. The unfortunate feature in connection with war saving has been the fact that since the war so many people who saved and paid for government bonds have been led to believe that their investment would net a larger return if placed in other securities and, accordingly, they have changed their form of investment, oftentimes unwisely. Doctors, a particularly gullible class, have been led astray along with many others.

A PROMINENT physician of Northern Indiana has been sentenced by Judge Anderson to pay a fine and to serve six months in jail for infraction of the narcotic law. The physician pleaded guilty, but claims that his guilt is only technical and that he should not have been dealt with so harshly, an opinion shared by all the doctor's confreres.

The lesson to be learned is that no matter what extenuating circumstances exist, a doctor should not be proven guilty of infractions of the narcotic law. The unfortunate predicament of one of our fellow professional men should be a warning to others to be careful that their conduct is not even suspicious of wrong doing.

THE humane societies in various localities are attempting to suppress the practice of using electric lights to stimulate egg laying at night by "fool chickens" that do not distinguish between natural and artificial light, and not being controlled by unions, with prescribed hours for labor, are inclined to work over-time. But why stop with hens when electric lights are used to force fruits and flowers? And while we are at this regulating business why permit any "turning night into day?" Seriously, though, aren't there altogether too many people trying to regulate the little things in the universe and overlooking the big things that ought to demand their attention, the regulation of which would be worth while?

COUE' found America a fertile field for profit, therefore he is returning and his coming is

heralded by the press in big headlines. His manager is a shrewd one in that he gets all this advertising without cost, even to the announcement of the time and place for the enormous audiences that it is supposed will greet the "quiet little man" who preaches "every day in every way I am getting better and better." Incidentally the American people who have consulted Coue' have dropped into his lap a handsome fortune. The practice of scientific and rational medicine does not pay so well. It is the bazarre, fantastic, sensational, inconsistent, or patently fraudulent that attracts the credulous and brings from them a perfect stream of dollars.

GOSH! Now its income tax to worry over; not the amount of the tax but the dern bother of computing it. It is a safe bet that not over one out of three doctors does anything more than guess at his income and another guess at his deductions for expenses, but Lord have mercy on such doctors if an income tax inspector comes around and like a man from Missouri "must be shown." Of course, Uncle Sam likes to have suggestions and consequently we offer for consideration the suggestion that doctors ought to be taxed on what they have left at the end of the year. For most of us that would simplify matters inasmuch as no tax could be collected. As the matter rests now, we are obliged to keep a comprehensive and accurate record of all of our financial dealings in order to arrive at the same conclusion and avoid being fined for hindering the collection of taxes.

IT may not be generally known that at present it is necessary to secure a federal license for the propagation and sale of viruses, serums, toxins and analogous products. "The granting of a license means that inspections of the establishment concerned, and laboratory examinations of samples of its products, are made regularly to insure the observance of safe methods of manufacture, to ascertain freedom from contamination, and to determine the potency of diphtheria antitoxin, tetanus antitoxin, botulinus antitoxin, anti-dysenteric serum, antimeningococcic serum, anti-pneumococci serum, bacterial vaccines, prepared from typhoid bacillus, paratyphoid bacillus A, paratyphoid bacillus B, diphtheria toxin-antitoxin mixture, and diphtheria toxin for Schick test, the only products for which potency standards or tests have been established."

A CONSIDERABLE portion of the lay press apparently has attempted to educate the public along right lines concerning health and its problems by publishing health departments, edited by trustworthy medical men, but they in a measure undo all this good work by, in many instances, also publishing so-called health information furnished by quack doctors or proprietary medicine manufacturers in which misleading and even dangerous

ideas are promulgated. This inconsistency on the part of newspaper owners and publishers can be accounted for only on the theory that the acquisition of the almighty dollar takes precedence over truth and justice. What we need in this country is the universal adoption by the lay press of a rule to refuse any and all paid medical advertising. Kill medical advertising and you kill the business of the quack doctor and the proprietary medicine manufacturer.

THE question has been asked by some of the members of our Association as to what has been done by the committee appointed to confer with the authorities of the Indiana University School of Medicine on the teaching of physiotherapy in the University. Unquestionably there is a field of usefulness for physiotherapy, and graduates in medicine should know something about it. At present there are vacancies in the Public Health Service and Veterans' Bureau for those who can administer physiotherapy in its several branches, such as massage, electro-therapy, hydro-therapy, mechano-therapy, thermo-therapy, active, passive, resistive and assistive exercises in remedial gymnastics. The question arises, just how much does the average physician know about the value of these procedures, and why shouldn't he know something about them in order to advise his patients intelligently as to when to employ them?

THE first of the year was the time for an inventory, and doctors, like those of other vocations, should have a definite idea as to assets and liabilities. Generally speaking, doctors are better business men than they were a few years ago. In fact, they have been compelled to be or lose all financial credit in the locality where they live, but there is still room for much improvement. For instance, many doctors still practice the obsolete plan of sending out statements only once or twice a year, and then only when they see a pressing need for ready cash. There is absolutely no reason why statements should not go out the first of every month, as there also is no reason why the doctor should not expect prompt payment in one form or another, for doctors can not pay bills with the promises of patrons any more than the patrons can live on promises, and what is fair for the merchant or other business man is fair for the doctor. We hope that many doctors turned over a new leaf with the beginning of the new year.

THE *American Naturalist*, for September-October, 1923, contains an interesting article by Professor C. H. Eigenmann of the Indiana University concerning the control of yellow fever by utilizing fishes. It is known that various fevers, especially yellow fever, are communicated from person to person by the bite of various mosquitoes. No mosquitoes, no fever. The suppression of mosquitoes by oiling the surface of

all standing water was the classic means employed in Panama. It has been known for years that some fishes make away with some mosquito larvae. Probably most young fishes eat mosquito larvae, but some fishes are more effective than others. To serve as an ideal yellow fever larvae eater, the fish must not only eat larvae but it also must be able to live under the conditions in which yellow fever mosquitoes breed. This means that the fishes must thrive in standing water, and Professor Eigenmann's article deals with the fishes that have been found to be most effective in this respect.

THE *Cincinnati Enquirer* says that Mr. Bryan chuckles with amusement when he tells us that believers in evolution prefer to go to the zoo rather than to church, and that there is no law in science or chemistry that upholds the theory of evolution, and that Darwin simply guessed that man evolved from lower life. The retort is then made that our spiritual faiths and beliefs in things are guesses or hypotheses, and that we believe in evolution as we believe in gravitation or a known chemical formula, for evolution is law. "Evolution is the hand-maid of faith, for evolution is the evidence of design, of beauty, of order, of promised perfection. The spore born of life-oozing seas in an infinite past today glows in the glory of the rose, or stirs in the brain of the thinker, man. He who can not find God, and love Him, in the growing garden of endless evolution is not likely to find him at all; and for all Mr. Bryan's primary proclamations, the record of evolution and the record of the Book of Books are in conflict not at all."

DR. ABRAMS is dead. The newspapers, with characteristic sensationalism, give Abrams credit for various "epoch making scientific discoveries," among which are mentioned the possibility, through the examination of a drop of blood, of determining sex, age and mental condition of the person from whom the blood was taken. The latter is reported to be of great value as evidence in criminal cases. Another much advertised Abrams discovery is the one by means of which, without the aid of history or physical examination of the patient, disease is diagnosed by electronic reaction. Certainly if all these discoveries were really scientific facts then Dr. Abrams would deserve all the credit given him by newspapers and a credulous public, but in reality not a single one of Abrams' discoveries has been proved worthy of acceptance by the scientific world. Dr. Abrams himself has failed utterly to demonstrate the truth of his theories, and his attempts in that direction before an impartial jury of scientific men have met with ignominious defeat. It is entirely probable that in the course of a few years Dr. Abrams and his so-called "discoveries" will have been forgotten.

ONE of our readers sends us the correspondence pertaining to a dispute with an insurance company concerning the payment of a bill for professional services rendered in an industrial case. Following the practice of the average insurance company, a charge of forty-three dollars covering operation, anesthetist's fee and after-attention in an operative case was objected to, and a compromise settlement at a considerable reduction was offered. The attending surgeon refused to settle on that basis, and in a fair-minded way pointed out the injustice of a compromise settlement. The insurance company finally settled the original claim, and the attending surgeon calls attention to the fact that if physicians generally would cease to be brow-beaten by insurance companies there would be less tendency to imposition. All of which reminds us that it is time that our State Association consider such matters through the Civic and Industrial Committee to the end that there will be less cause for complaint concerning the injustices heaped upon individual physicians by insurance companies.

THE Citizens Medical Reference Bureau, with offices in New York City, takes exception to the statement that it is disseminating vicious propaganda, but we hardly think the complaint will register in view of the fact that the Bureau is defending parental control over children and is opposed to compulsory medicine or surgery of any kind for either children or adults. Logically this means that a parent, steeped in the inconsistent and irrational teachings of the Christian Science faith, or any other delusion, may be permitted to let his innocent children die from diphtheria, a curable disease, without making any effort to control the disease according to demonstrated and generally accepted methods of treatment, or he can let that same child suffocate to death from an obstruction in the larynx caused by diphtheritic membrane, or any foreign body, and not lift his hand to save the life by a surgical operation that even in a majority of instances proves entirely successful. Yet this same Bureau has the temerity to say that it is not disseminating vicious propaganda when it advocates such rot!

It is estimated that twenty-five million gainfully employed Americans are suffering from defective vision, causing a great waste in industry. The Ford Motor Company employs sixty-five thousand workers and of this number nearly fifty per cent have vision below normal. All of the employees with poor vision are placed on jobs where there is no risk of injury or other conditions that would make eyesight worse. Twelve totally blind persons have been put to work on jobs suitable for their conditions. Nearly five hundred employees are blind or practically blind in one eye. The need for systematic examination of the eyesight of all industrial workers is apparent, and not the

least important of the reasons for this is the advisability of having a record of the status of the vision of each employee so that in case of serious eye injury it may be determined with certainty how much of the impairment of the vision is due to injury and how much was present before the accident. Aside from this there is the very important fact that industrial workers should be engaged in those jobs for which their eyesight is suitable.

THE medical obstructionists through distortion, misrepresentation and deliberate falsification are attempting to discredit the value of the immunizing treatment for typhoid fever, small pox, diphtheria, tetanus, and other infectious and communicable diseases. Now comes Surgeon General Ireland of the U. S. Army with a letter, published in the *Fort Wayne News-Sentinel* of January 11, 1924, in which the value of typhoid immunizing treatment of soldiers engaged in the World War in preventing typhoid is set out in a manner that permits no reasonable doubt in the minds of rational thinking people. However, the obstructionists, the antivaccinationists, and others of like stripe, will not accept proof no matter how authentic and convincing. They prove the truth of the old adage "convinced against their will, they are of the same opinion still." Therefore, we must continue to counteract their vicious propaganda in order that the ignorant and the misinformed may have the benefit of trustworthy knowledge. Furthermore, who among thinking people are going to give much credence to the opinions of a few mentally warped individuals making up the ranks of the antivaccinationists after analyzing the evidence presented by Surgeon General Ireland and a host of other authorities whose conclusions are worthy of respect?

It is difficult to prevent the enterprising newspaper reporters from making news of medical discoveries, but it is unfortunate that such news should be made so sensational and exaggerated and so much notoriety should be given the medical man who perhaps has made a discovery of value. Thus the announcement that a 250,000 x-ray voltage has been employed successfully in curing internal cancer has been so extravagantly described in the lay press, with eulogistic praise of the doctors who are using the treatment, that one is reminded of the paid display advertising of the quack doctor. The only difference is that in one case the doctor is outside of the pale of respectability and therefore pays for publicity even though it is in the advertising section of the paper, whereas in the other case the doctor is a so-called ethical medical man and he gets his publicity on the first page of the paper and without cost. And speaking of publicity, we are reminded of the fact that one of the presidents of the A. M. A., while sojourning to the session at which he was to

preside, found it convenient to be interviewed by newspaper reporters in the various cities through which he passed and to pose for a large number of pictures which adorned the front pages of the daily papers in the convention city. Perhaps such advertising is ethical but to our notion it is in exceedingly bad taste and makes the man who resorts to such tactics appear as a "four flusher" of the first magnitude.

DEATHS

O. B. PETTIJOHN, M.D., of Indianapolis, was buried January 18. Dr. Pettijohn was a graduate of the Indiana Medical College, Indianapolis, in 1878.

ISAIAH WILTON, M.D., of Evansville, died January 12 at the age of seventy-seven years. He was a graduate of the Hospital Medical College of Evansville, in 1883.

G. F. HESLER, M.D., of Indianapolis, died December 18. Dr. Hesler was seventy-six years of age. He graduated from the Kentucky School of Medicine at Louisville in 1882.

W. E. SHERROW, M.D., of Ashley, died December 26, 1923, at the age of sixty-eight years. Dr. Sherrow was a graduate of the Indiana Eclectic Medical College, Indianapolis, in 1888.

A. M. RUPERT, M.D., of Attica, died December 18 at the age of seventy-one years. Dr. Rupert was not in active practice at the time of his death. He was a graduate of the Medical College of Ohio, Cincinnati, in 1877.

ANDREW CHITTICK, M.D., of Burlington, died December 21, 1923, at the age of sixty-seven years. He graduated from the Medical College of Ohio, Cincinnati, in 1883. He was a member of the Carroll County Medical Society, the Indiana State Medical Association and the American Medical Association.

THOMAS JEFFERSON GRIFFITH, M.D., of Crawfordsville, died January 6, at the age of eighty-seven years. Dr. Griffith was a graduate of the Miami Medical College, Cincinnati, in 1867. He was a member of the Montgomery County Medical Society, the Indiana State Medical Association and the American Medical Association.

CHARLES S. BRYAN, M.D., of Vincennes, died January 12, aged forty-three years. Dr. Bryan was a graduate of the Indiana Medical College, School of Medicine of Purdue University, Indianapolis, in 1906. He was a member of the Knox County Medical Society, the Indiana State Medical Association and the American Medical Association.

NEWS NOTES AND PERSONALS

Anything in the line of physicians' supplies or equipment may be obtained from advertisers in THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION. Patronize these advertisers, for it means a continuance of their advertising patronage, and the latter means a larger and better Journal for you.

DR. A. H. SHAFFER, of Huntington, celebrated his ninety-fifth birthday on January 15.

DR. CARL B. SPUTH, of Indianapolis, is in New York attending clinics in eye, ear, nose and throat work.

DR. DOSTER BUCKNER, of Fort Wayne, has been appointed physician for the Allen County Children's Home.

DR. JOHN N. HURTY, of Indianapolis, has gone to Miami, Florida, where he will spend the remainder of the winter.

CHAS. E. STONE, M.D., and Miss Ruth Higgins, a trained nurse, both of Vincennes, were married in Louisville, Ky., December 31, 1923.

THE first annual meeting of the American Association for the Study of Goiter was held in Bloomington, Illinois, January 23, 24 and 25.

DR. A. J. SPARKS, of South Bend, has gone to New York City where he will act as resident surgeon at Mount Sinai Hospital for one year.

DR. J. W. GARTON has been made physician of the Fort Wayne General Electric Company to succeed Dr. Emor L. Cartwright, who resigned.

THE Sofie A. Nordoff-Jung Cancer Prize has been awarded, for the first time this year, to Dr. Johannes Fibiger, of the University of Copenhagen.

THE Hancock County Medical Society celebrated its fiftieth anniversary at a banquet held at Greenfield, December 31, 1923. A paper was presented by Dr. Samuel E. Earp, of Indianapolis.

AT the annual meeting of the board of directors of the National Committee for Mental Hygiene, held in New York City, December 28, 1923, Dr. Frankwood E. Williams was re-elected medical director.

THE Jasper-Newton County Medical Society held a meeting at Remington, January 25. Dr. C. C. Bassett presented a paper on "Pituitrin Therapy", and Dr. C. E. Johnson presented a paper on "Medical Ethics".

THE Muncie Academy of Medicine held a meeting January 18 at the Hotel Roberts. Dr. John Barnhill, of Indianapolis, presented a paper on

"The Air Spaces of the Skull in Relation to Medical and Surgical Disease".

DR. J. E. P. HOLLAND, of Bloomington, university physician at Indiana University, has been made president of the American Student Health Association to succeed Dr. J. E. Raycroft, of Princeton University.

At a meeting of the Indianapolis Medical Society held January 8, Dr. John F. Barnhill was made president; Dr. William A. Doeppers, secretary-treasurer. Dr. John W. Sluss, the retiring president, presented a paper on "Medicine and Spirits".

PAUL COBLE POST No. 26, of the American Legion, composed entirely of doctors and dentists, the only post of its kind in the American Legion, held a meeting at Indianapolis, January 23. Dr. Paul T. Hurd, of Indianapolis, was made commander.

THE Annual Congress on Medical Education, Medical Licensure, Public Health and Hospitals will be held in the Florentine Room of the Congress Hotel, Michigan Avenue and Congress Street, Chicago, March 3, 4, and 5. All those interested are invited to be present.

At a meeting of the officers of the Indiana Section of the American Hospital Association, held at the Lincoln Hotel, Indianapolis, January 25, it was decided that the next annual meeting of the Indiana Section Association would be held in Fort Wayne, April 23 and 24, 1924.

THE Bureau of Publicity of the Indiana State Medical Association is functioning. The committee is composed of William N. Wishard, chairman; Frank W. Creagor, secretary, and David Ross. The executive secretary is James H. Stygall. Offices have been opened at 1004 Hume-Mansur Building, Indianapolis.

THE United States Civil Service Commission announces open competitive examination under the titles of Medical Officer, Junior Grade; Medical Officer, Grade A; and Medical Officer, Grade B. Applications will be rated as received until June 30, 1924. Applicants should at once apply for Forms 2415 and 2398, stating the title of the examination desired, to the Civil Service Commission, Washington, D. C.

THE Indiana University School of Medicine is offering a post-graduate course on surgery of the ear, nose and throat, beginning April 2, at 7:00 p. m. The course will cover a period of eight weeks with meetings of the class on Monday, Wednesday and Friday of each week. Only a limited number of students can be accommodated.

For further particulars, address Registrar, Indiana University School of Medicine, Indianapolis, Indiana.

DEATHS in Indiana totaled 38,747 in 1923, an increase of 3,269 over the preceding year. The state death rate for 1923 was 13.2 for each 1,000 of population, according to a compilation of vital statistics completed January 20 by the director of the division of vital statistics of the state board of health. Births in the state totaled 65,104 in 1923, an increase of 1,640 over 1922. The birth rate for the state for 1923 for each 1,000 of population was 22.2.

THE Kosciusko County Medical Society has announced its program of meetings for 1924. Meetings are to be held on the third Tuesday of each month. The January meeting was held in the Warsaw Library, January 15. Papers were presented by Dr. F. J. Young, his subject being "Acne" and by Dr. M. F. Porter, Jr., of Fort Wayne, his subject being "Cancer". The officers for the society for 1924 are P. G. Fermier, president; F. H. House, vice-president; and O. H. Richer, secretary-treasurer.

THE annual meeting of the Indiana Academy of Ophthalmology and Otolaryngology was held in Indianapolis, January 16 and 17, at the Claypool Hotel. A paper on "Indications in Acute Inflammations of the Mastoid with Reference to Pathology and Anatomical Structure" was presented by Dr. Norval H. Pierce, of Chicago. Dr. John R. Newcomb presented a paper on "The Correction of Presbyopia". A symposium on "The Sphenopalatine Ganglion" was presented by Drs. R. S. Chappell, J. D. Hietger, Eugene L. Bulson and C. H. McCaskey. The new officers elected are: B. J. Larkin, president; F. McKay Ruby, vice-president; and E. M. Shanklin, secretary-treasurer.

In addition to the articles already enumerated, the following have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association:

Abbott Laboratories:

Potassium Bismuth Tartrate—D. R. L.

Ampules Potassium Bismuth Tartrate with Butyn—D. R. L., 0.1 Gm.

Ampules Potassium Bismuth Tartrate with Butyn—D. R. L., 0.2 Gm.

Britt, Loeffler & Weil:

Loeflund's Malt Soup Stock (Dr. Keller's Formula).

Hynson, Westcott & Dunning:

Flumerin—H. W. & D.

Lederle Antitoxin Laboratories:

Corpus Luteum—Lederle.

Corpus Luteum Extract—Lederle.

Ovarian Residue—Lederle.

1 Percent Silver Nitrate Solution—Lederle.
 Whole Ovary—Lederle.
 Parke, Davis & Co.:
 Ergot Aseptic.
 Ampules Ergot Aseptic 1 Cc.
 Scarlet Red Sulphonate—P. D. & Co.
 Scarlet Red Emulsion, 4 Percent—P. D. & Co.
 Scarlet Red Ointment, 5 Percent—P. D. & Co.
 Scarlet Red Ointment, 10 Percent—P. D. & Co.

SOCIETIES AND INSTITUTIONS

STATE BOARD OF MEDICAL REGISTRATION AND EXAMINATION

Minutes of the Meeting—January 8, 1924

The State Board of Medical Registration and Examination convened at 10:00 a. m., at the office of the Board, No. 333 State House, January 8, 1924, in regular semi-annual session. Members present were Drs. Shanklin, Bowers, Gott, Davidson, and Kinsinger. Attorney Fred McCallister also was present. Dr. Shanklin presided in the absence of Dr. Spurgeon, President.

The minutes of the meeting of November 14, 1923, were read and approved.

DR. JAS. DUDLEY BANTA, Rockport, Ill., had been cited to appear at this hour to show cause why his Indiana license should not be revoked. Dr. Banta did not appear. A letter was read from Dr. Banta explaining his reasons for not coming. The evidence on file in this case being a transcript of the Court Records in the District Court of the U. S., for the Southern District of Illinois, Northern Division, April term, 1922, this being the indictment, sentence and commitment to the U. S. Penitentiary at Leavenworth, Kans., for a period of two years for a violation of the Anti-Narcotic Act. Upon review of the evidence Dr. Davidson moved that the license of Dr. Banta be revoked and cancelled. Seconded by Dr. Bowers. The motion was carried. The Secretary was directed to so notify Dr. Banta and to instruct the county clerk of the county issuing the said license to record same upon the margin of such record of such license.

JUNIOR COLLEGE, CHICAGO COLLEGE OF OSTEOPATHY. 5240 Ellis Avenue, Chicago.—J. H. Raymond, Dean of this institution, appeared before the Board to explain the curriculum of the Junior College in order to gain approval of the Board of this course as a premedical course. Dr. Raymond was advised that the Board would consider the matter and that he would be informed later. Dr. Bowers made a motion that the matter be laid on the table until the next meeting of the Board. Seconded by Dr. Kinsinger. Motion carried.

ADOLPH TEINLER, M.D., Indiana Harbor.—Attorney McCallister reported the trial of this physician in Lake County. He had appealed to the Court of Lake County for a license, upon refusal of a certificate by this Board. The Court had ordered the Clerk to issue him a license. After due consideration of the facts in the case, Dr. Davidson moved that Attorney McCallister be authorized to take the necessary legal steps to carry the case to a trial. Motion carried unanimously.

RESOLUTION—CITIZENSHIP OF APPLICANTS FOR LICENSURE IN INDIANA.—In consideration of applicants from foreign countries, some of whom cannot read nor write the English language, a resolution was offered by Dr. Davidson: "Resolved, That candidates for licensure in the State of Indiana must be naturalized citizens of the United States of America." Dr. Davidson moved the adoption of this resolution, seconded by Dr. Bowers. Resolution was adopted.

VALIDATION OF EXAMINATION GIVEN BY THE NATIONAL BOARD OF MEDICAL EXAMINERS.—Dr. Davidson had requested an opinion from the Attorney General in

the following words: "Has the Indiana Board of Medical Registration the legal right under the Medical Practice Act to delegate its functions by attempting to validate an examination given by an organization voluntarily organized without legal antecedents and calling itself a National Board of Medical Examiners?" The Attorney General's Opinion was read to the Board as follows: "While I am not prepared to say that the Legislature does not have the constitutional right to authorize your Board to delegate some of its powers and functions to subordinate agencies, in my opinion it would not be valid legislation to assume to authorize said Board to delegate its main powers and functions to some other privately organized agency such as the National Board of Medical Examiners."

WORLD WAR RESOLUTION REPEALED.—Dr. Davidson moved that after this date, January 8th, 1924, that the resolution known and recorded as The World War Resolution be repealed. Seconded by Dr. Kinsinger. Unanimously carried.

ELECTION OF OFFICERS.—Upon motion of Dr. Davidson, seconded by Dr. Kinsinger, the officers of 1923 were retained for the year 1924. The motion was carried.

REPRESENTATIVE TO FEDERATION OF STATE MEDICAL BOARDS AT CHICAGO, MARCH, 1924.—Dr. Bowers was appointed by the acting president as representative of the Board at the Federation meeting. Dr. Bowers accepted the appointment.

VIOLATORS OF THE HARRISON ANTI-NARCOTIC ACT CONVICTED IN FEDERAL COURT OF INDIANA.—Dr. Davidson presented the following names of physicians in Indiana who have recently been convicted in the Federal Court: Dr. Wm. B. Hartsock, 14 W. Ohio St., Indianapolis; Dr. Jas. Kerr, Greensfork, Indiana; Dr. Martin E. Klinger, Garrett, Indiana. These three men were given six months in the Marion County jail and fined \$500 each.

The names of Dr. Jas. P. Allen (colored), of Indianapolis, now serving time for the same offense, and Dr. Jas. O. Puryear (colored), formerly of Indianapolis, now of 1414 East 14th St., Los Angeles, California, who has served his time in Leavenworth for same offense, were submitted along with the above mentioned white physicians. Dr. Davidson made a motion that all five of these physicians be cited to appear before the Board and show cause why their licenses should not be revoked and cancelled; the Board to procure the transcripts of court record in each case as evidence in the hearing. Motion seconded by Dr. Bowers. Same carried.

RESOLUTION TOUCHING VIOLATORS OF FEDERAL LAWS.—Dr. Davidson introduced the following resolution: "Resolved, That it be the policy of the Board to revoke or deny certificates of license to practice in the State of Indiana to physicians upon showing of proper evidence of a violation of the Harrison Anti-Narcotic Act." Dr. Davidson moved the adoption of same. Seconded by Dr. Bowers. Unanimously carried.

JUNIOR COLLEGE OF CHICAGO COLLEGE OF OSTEOPATHY.—Upon further consideration of this subject Dr. Bowers made a motion that the matter be laid on the table until the next meeting. Seconded by Dr. Kinsinger. Motion carried.

Board adjourned at 4:00 P. M.

QUAINT NEW YORK CUSTOM

An old edition of Morse's geography declares that "Albany has four hundred dwelling houses and twenty-four hundred inhabitants, all standing with their gable-ends to the street."—*Quoted from a scrap-book by a resident of Boyds, Md.*

THE TIME OF TRIAL

"Do you have to see a doctor before you get booze in this town?"

"No, afterwards."—*Harvard Lampoon.*

TRUTH ABOUT MEDICINES

NEW AND NONOFFICIAL REMEDIES

POTASSIUM BISMUTH TARTRATE—D. R. L.—A basic potassium bismuth tartrate containing from 64 to 69 per cent. of bismuth. For a discussion of the actions and uses see Bismuth Preparations in the Treatment of Syphilis (*Jour. A. M. A.*, August 25, 1923, p. 661). Potassium bismuth tartrate—D. R. L. is supplied only in the following forms: Ampules potassium bismuth tartrate with butyn—D. R. L., 0.1 Gm. (containing potassium bismuth tartrate—D. R. L., 0.1 Gm. suspended in 2 Cc. of a 0.6 per cent. solution of butyn in a fixed oil); Ampules potassium bismuth tartrate with butyn—D. R. L., 0.2 Gm. (containing potassium bismuth tartrate—D. R. L., 0.2 Gm. suspended in 2 Cc. of a 0.6 per cent. solution of butyn in a fixed oil). The product is administered intramuscularly. The Abbott Laboratories, Chicago.

SCARLET RED SULPHONATE—The sodium salt of azobenzene-disulphonic-acid-azobetanaphthol. The actions and uses of scarlet red sulphonate are essentially the same as those of scarlet R medicinal Biebrich (see New and Nonofficial Remedies, 1923, p. 275). It is marketed only in the following forms: Scarlet red emulsion, 4 per cent.—P. D. and Co., Scarlet red ointment, 5 per cent.—P. D. and Co., Scarlet red ointment, 10 per cent.—P. D. and Co. Parke, Davis and Co., Detroit. (*Jour. A. M. A.*, January 19, 1924, p. 209).

ERGOT ASEPTIC—A liquid extract of ergot containing the soluble constituents of the drug. It is standardized biologically so that 1 Cc. represents 2 Gm. of ergot. The actions and uses of ergot asepti are the same as those of ergot. The dose in 1 to 2 Cc. injected intramuscularly. Ergot asepti is marketed only in 1 Cc. ampules. Parke, Davis and Co., Detroit.

LOEFFLUND'S MALT SOUP STOCK (Dr. Keller's Formula).—A preparation essentially similar to extract of malt U. S. P., but containing a small amount of potassium carbonate. Loefflund's malt soup stock is designed for use in preparing the malt soup of Dr. Keller. Britt, Loeffler and Weil, New York. (*Jour. A. M. A.*, January 26, 1924, p. 303).

PROPAGANDA FOR REFORM

INTARVIN.—Because of numerous inquiries, the Council on Pharmacy and Chemistry publishes a preliminary report on Intarvin. The product is marketed by the Intarvin Company, Long Island City, N. Y. Dr. Max Kahn has applied for a patent on it. Many statements have been given the lay press by those interested in the promotion of Intarvin, but as yet no publication has appeared in the medical press, except preliminary reports by Kahn. Intarvin is proposed for use in diabetes or in conditions where acidosis occurs. It is a synthetic fat which, it is claimed, can be assimilated by the diabetic without the production of products that cause acidosis, as is the case with ordinary fats when these are consumed by diabetics. Intarvin is stated to be the glyceryl ester of margaric acid admixed with ten to twelve per cent. of liquid petrolatum. While the usefulness of Intarvin is curtailed by the discovery of insulin, it should be valuable in planning a diabetic diet if the claims made for it are substantiated: Intarvin is still in the experimental stage and it is unfortunate that so much newspaper notoriety has been given it. Until acceptable evidence is available for its usefulness, palatability and practicability, judgment of its worth must be suspended. (*Jour. A. M. A.*, January 5, 1924, p. 51).

FIRMA-CHLORO.—Firma-Chloro is marketed by the Chloro Chemical Corporation. According to the label it is a mixture of chlorinated lime, tincture of iodine, picric acid, potassium chlorate, sodium bicarbonate and glycerin, but the amounts of the ingredients are not declared. The preparation is claimed to be a powerful chlorinated disinfectant. It is alkaline in reaction, hence the iodine

which is claimed to be present would be converted to sodium iodide and sodium iodate. Altogether, the claimed formula is an impossible one. Firma-Chloro is another example of an irrational antiseptic. The favorite method of introducing Firma-Chloro is much like that used for "Oil of Salt" (which the A. M. A. Chemical Laboratory found to be essentially a mixture of linseed oil and essential oils, including turpentine, camphor and sassafras), namely, sending letters to manufacturing plants importuning them to have the product used in the first aid or medical department. (*Jour. A. M. A.*, January 5, 1924, p. 53).

CHEMICAL FOUNDATION WINS.—During the late war our government seized many German patents on synthetic drugs. Later the Alien Property Custodian, on executive order of President Wilson, sold 4,700 German chemical patents to the Chemical Foundation, Inc. This corporation agreed in turn to license any American firm that could present evidence of reliability in chemical manufacture to manufacture under these patents. As a result of this action, physicians may today obtain different brands of arsphenamin instead of one proprietary "Salvarsan"—and at competitive prices. The same is true of other useful synthetics. About a year and a half ago, President Harding instructed the Alien Property Custodian to take steps to secure the return of all patents sold to the Chemical Foundation, Inc., on the ground that the price paid was inadequate and the transaction illegal. Suit was instituted by the government against the Chemical Foundation, Inc. for the recovery of the patents. The suit was won by the Chemical Foundation, Inc. In the decision of the court, it was held that the price was adequate, for the reason that many of the patents were nonworkable and that, therefore, because of the financial risk and hazard, the value of the patents "was too slight and problematical to warrant the payment by American citizens of a sum even remotely approximating what they might have been worth to the German owners for their monopolistic purposes." Hence, the bill of complaints filed by the government was set aside. (*Jour. A. M. A.*, January 12, 1924, p. 130).

CASE'S RHEUMATISM CURE.—Some years ago, Jesse A. Case was exploiting "Case's Rheumatic Specific" and an adjunct, a "Liver Tablet." This was a fraudulent mail-order quackery and was finally put out of business by the Post Office Department. Now, Paul Case, son of Jesse A. Case, advertises in newspapers that he has a wonderful rheumatism prescription which he is willing to give free. Those who write receive prescriptions which are strikingly similar to the preparations used by Jesse A. Case. However, the prescription of Paul Case starts out with a "Joker" that was not in the prescription of his father. This is "Powdered Gadoeng (Java)." When sending the prescriptions, Case states that best results are obtained with Genuine Gadoeng—and offers to supply the remedies for a moderate price. Gadoeng is a name for *Dioscorea hirsuta*, (a plant related to the obsolete American drug Wild Yam) which grows in Java and is not found in drug stores. Hence, druggists cannot fill the prescription, and those who want the medicine must get it of Case. (*Jour. A. M. A.*, January 12, 1924, p. 145).

THE ACTION OF SALICYLATES, CINCHOPHEN, NEOCINCHOPHEN AND RELATED PRODUCTS.—The latest (1923) edition of Useful Drugs speaks of the salicylates, cinchophen, neocinchophen and related drugs as "highly efficacious" and "exceptionally efficient" in the management of certain phases of arthritis. The assumption that the drugs exert an etiologic action by destroying bacterial agencies responsible for the disease has been disproved repeatedly. They do not function as germicides, for example, in rheumatic fever assumed to be caused by microorganisms. Recently, Hanzlik and Painter compared the antiphlogistic effect of salicylates cinchophen and neocinchophen in experimental edema of head and neck. They concluded that the so-called antiphlogistic action of these drugs as exemplified in the prompt amelioration of objective signs of inflammation, including the swelling and

edema of the joints, is not due to a direct action on the inflammatory process. Experimental edema of the head and neck in animals was not beneficially influenced by previous and simultaneous treatment of the animals with sodium salicylate, cinchophen or neocinchophen. Negative results with respect to antiphlogistic effects have also been observed in the treatment of other kinds of edema. Consequently it is concluded that the beneficial effects of these drugs in rheumatic fever appear to be produced neither through etiotropic nor organotropic, but rather through symptomatic action, the benefits being mediated through antipyresis and analgesia. (*Jour. A. M. A.* January 19, 1924, p. 213).

DIPHTHERIA ANTITOXIN FOR THE INFANT.—In the presence of diphtheria, no age is a contraindication to the administration of antitoxin. The dose for infants of from 10 to 30 pounds and under two years of age has been given as from 2,000 to 10,000 units. The immunity to diphtheria in young infants seems to depend on antitoxin received from the mother through the placental circulation. This immunity is possessed by more than 90 per cent. of children in the early weeks of life, but at the end of a year this has been lost by about half of them. Serums are well borne by young children, as they have little sensitiveness to foreign proteins. A suitable immunizing dose of diphtheria antitoxin for an infant would be from 200 to 500 units, and the therapeutic dose from 2,000 to 10,000 units. (*Jour. A. M. A.*, January 19, 1924, p. 228).

DERMATOSIS FROM FUR.—Reports have been published of persons who have suffered severe eruptions and irritations of the skin following the wearing of furs. Investigation has shown that these disturbances are caused by paraphenylenediamin which is used to dye furs black and by quinone, an oxidation product of paraphenylenediamin which gives a brown color. The untoward effects may be prevented largely by extreme care in the finishing and dying processes with special attention to remove all excess dye, and particularly traces of quinone from the fur. (*Jour. A. M. A.*, January 26, 1924, p. 307).

SPECTRO-CHROME THERAPY.—Colonel Dinshah P. Ghadiali is the exponent of "Spectro-Chrome Therapy" and founder of the "Spectro-Chrome Institute." According to a "life sketch" sent out by him, he was born in India, attended a primary school when he was 2½ years old, was in high school when he was eight years old and at the age of 11 acted as assistant to a professor of mathematics and science at Wilson College, Bombay. Since then he claims to have had a remarkable and varied career. "Spectro-Chrome Therapy," we are told is "The Latest Revelation in the Healing Art." It consists in "the restoration of the healing Radio-Active and Radio-Emanative Equilibrium by Attuned Color Waves." Here is the thesis developed and commercialized by Ghadiali: Every element exhibits a preponderance of one or more of the seven prismatic colors; 97 per cent. of our body is composed of the four elements, oxygen, hydrogen, nitrogen and carbon. The preponderating color waves of these four elements are blue, red, green and yellow respectively; the human body is responsive to these four "color wave potencies." In health our four colors are properly balanced. When they get out of balance we are diseased; ergo, to cure disease, administer the lacking colors or reduce the colors that have become too brilliant. These cures are to be produced, of course, by means of paraphenalia which Ghadiali supplies. He gives a course in "Spectro-Chrome Therapy." At the end of the course which seems to last two weeks, a diploma is granted. That this "cult" is taken seriously by some, is shown by the published testimonials of cures said to have been wrought. Hopeless and credulous patients are being treated for such serious conditions as syphilitic conjunctivitis, ovaritis, diabetes, neuritis, pulmonary tuberculosis and chronic gonorrhea, with colored light. (*Jour. A. M. A.*, January 26, 1924, p. 321).

EFFECTS OF BROMIDS ON EPILEPSY.—The harmful effects of the prolonged administration of bromids aside

from the skin and intestinal effects, are gradually increasing dullness, heaviness, torpor, stupidity, with greater self centering of interests and unintelligence. The size of the dose that is necessary to control the fits is probably an important factor in determining the amount of damage that will be done. (*Jour. A. M. A.*, January 26, 1924 p. 325).

BOOK REVIEWS

LABYRINTH AND EQUILIBRIUM. By Samuel S. Maxwell, M.S., Ph.D., professor of physiology in the University of California. 165 pages, 11 illustrations. Cloth, price \$2.50. J. B. Lippincott Company, Philadelphia, 1923.

This is an interesting although a technical presentation of the subject of equilibrial reactions of vertebrate animals and the mechanism through which these reactions were produced. The author has confined himself largely to the description of the experiments on the ears of selachians and a statement of conclusions which may be reached from these experiments. Of especial interest is the final chapter upon nystagmus in which the compensatory and return movements or phases of the nystagmus are discussed. The book is one of a series of monographs on general biology which was called forth by the rapidly increasing specialization.

THE CHEMICAL BASIS OF GROWTH AND SENESCENCE.

By T. Brailsford Robertson, Ph.D., D.Sc., professor of physiology and biochemistry, University of Adelaide, South Australia. 390 pages. Cloth, \$3.00. J. B. Lippincott Company, Philadelphia, 1923.

This is one of several monographs on experimental biology and general physiology, brought out in view of the impossibility of covering satisfactorily, either by one author or in one volume, the whole field of modern biology. This book is but one that attempts to explain life from the physio-chemical constitution of living matter, or an interpretation of growth as based upon certain chemical processes of development. The author takes up first the question of the physical manifestations of growth in man, with the various aspects of pre-natal and post-natal growth, and follows this with a section devoted to the physical manifestations of growth in animals and plants. Following this there are sections dealing with the reproduction of unicellular organisms; the substrates of growth; the retarding influences in growth; differentiations and development; the nutrient level in relation to growth; hyper-differentiation (cancer); the influence of special agencies of growth; and lastly, growth and evolution. An important feature of the book is the appendix with its table and methods for the computation of curves of autocatalysis.

NUTRITION OF MOTHER AND CHILD. By G. Ulysses Moore, M.D., M.Sc., instructor in diseases of children, University of Oregon Medical School. 234 pages, cloth, 33 illustrations. Price, \$2.00. J. B. Lippincott Company, Philadelphia, 1923.

The important discoveries in nutrition made during the past five years have revolutionized our ideas of dietetics. This volume presents the facts of nutrition which have been accepted by schools of accredited standing everywhere. The book lays particular emphasis on the newer conception of breast feeding, the building up of breast milk, vitamins and the mineral contents of the diet. Nothing is included which has not been tested and proven of practical value in personal experience. The volume is written in simple English and as untechnical as is feasible in the presentation of scientific facts. It is so arranged that it may be employed by nurses and social workers for instruction of mothers in the homes and in conducting short courses in nutrition. The book contains chapters on Knowledge of Nutrition; Three

(Continued on Adv. Page xx)

Suprarenalin Solution

A fine product in a convenient package

SUPRARENALIN SOLUTION 1:1000 is the incomparable preparation of the kind. It keeps well and is put up in a g. s. bottle with cup stopper. By working from the solution in the cup, contamination of the contents of the

original package is avoided.

Ischemic action of Suprarenalin Solution is enhanced and prolonged by the addition of equal parts of Pituitary Liquid (Armour), the Premier Product of Posterior Pituitary.

SUPRARENALIN OINTMENT 1:1000

is very bland and its effects lasting

ARMOUR AND COMPANY

CHICAGO



We are Headquarters
For the Endocrines

WALLACE-SOMERVILLE SANITARIUM

Succeeding the Petty & Wallace Sanitarium

MEMPHIS, TENN.

WALTER R. WALLACE, M.D.
WILLIAM G. SOMERVILLE, M.D.

FOR THE TREATMENT OF

**DRUG ADDICTIONS, ALCOHOLISM
MENTAL AND NERVOUS DISEASES**

Located in the Eastern suburbs of the city.
Sixteen acres of beautiful grounds.
All equipment for care of patients admitted.



Louisville Neuropathic Sanatorium

INCORPORATED

1412 South Sixth Street, Louisville, Kentucky

and Nervous Diseases. Situated in residence portion of the city, yet quiet and retired. Rates furnished upon request.

W. E. GARDNER, A.B., M.D.
Medical Director

W. E. RENDER, M.D.
Resident Physician



BOOK REVIEWS

(Continued from Page 66)

Known Vitamins; Rickets; Diet During Pregnancy and Lactation; Breast Feeding; Development of Breast Milk; Care and Feeding of the Premature Infant; Diet From Six to Twenty-four Months; Artificial Feeding; Diet for the Older Child; Faulty Diets; Some Common Fallacies in the Care and Feeding of Children.

THE EYESIGHT OF CHAUFFEURS

The Journal recently commented on the necessity for defining some mental and physical standard for those who endeavor to drive motor vehicles on the public highways. The increasing mortality in this country from this cause is attracting attention throughout the world. Recently, in a case brought before a British court, it was discovered not only that the driver of a motor vehicle was intoxicated at the time the accident occurred, but also that he was possessed of but a single eye, the other eye being artificial. An amusing side to the case was the fact that the man who examined him after the accident did not detect the artificial eye but reported that the pupils in each eye were dilated. As the medical press points out: "In the case of the chauffeur everything is different; alert and perfect vision in both eyes is indispensable and should be made essential before a license is issued to a motor driver from the point of view of the public safety." The setting of a standard of vision and examination as to the ability of drivers to meet the standard by competent observers might well be the first step in a plan for controlling accidents so far as they are represented by deficiencies in the drivers of motor cars.—*Jour. A. M. A.*

Indiana State Medical Association

(Continued from Adv. Page viii)

ENTERTAINMENT COMMITTEE—John R. Newcomb, Indianapolis, Chairman; A. L. Marshall, Indianapolis; Ernest Rupel, Indianapolis; John Sluss, Indianapolis.

FINANCE COMMITTEE—Alfred Henry, Indianapolis, Chairman; Harry Langdon, Indianapolis; E. E. Padgett, Indianapolis; W. W. Garshwiler, Indianapolis; Robert Moore, Indianapolis.

HOTEL AND HOUSING COMMITTEE—A. E. Guedel, Indianapolis, Chairman; LaRue Carter, Indianapolis; A. B. Graham, Indianapolis; C. R. Strickland, Indianapolis.

GOLF COMMITTEE—W. S. Tomlin, Indianapolis, Chairman; H. H. Wheeler, Indianapolis; Goethe Link, Indianapolis; Thos. L. Sullivan, Jr., Indianapolis.

PUBLICITY COMMITTEE—Thos V. Keene, Indianapolis, Chairman; Norman Jobes, Indianapolis; J. H. Taylor, Indianapolis; Thos. J. Beasley, Indianapolis; C. S. Goar, Indianapolis.

MEETING PLACE COMMITTEE—Charles N. Combs, Terre Haute, Chairman; Wm. A. Doeppers, Indianapolis.

RECEPTION COMMITTEE—All members of Indianapolis Medical Society.

MILITARY COMMITTEE—J. R. Eastman, Indianapolis, Chairman; LaRue D. Carter, Indianapolis; W. M. Stout, Newcastle; Charles N. Combs, Terre Haute; Carl Habich, Indianapolis; R. G. Hendircks, Indianapolis; J. S. Robison, Winchester.

BUREAU OF PUBLICITY—W. N. Wishard, Indianapolis, Chairman; F. W. Cregor, Indianapolis, Secretary; David Ross, Indianapolis; J. H. Stygall, Executive Secretary.

ADVISORY BOARD TO BUREAU OF PUBLICITY—(Appointed by Council)—S. E. Earp, President Indiana State Medical Association; E. M. Shanklin, Chairman of the Council; A. E. Bulson, Jr., Editor Journal of the Indiana State Medical Association.



Building Absolutely Fireproof

Waukesha Springs Sanitarium

For the Care and Treatment of
NERVOUS DISEASES

BYRON M. CAPLES, M.D., Medical Director

FLOYD W. APLIN, M.D., Superintendent

WAUKESHA, WIS.

The Walker Hospital Clinic

EVANSVILLE, INDIANA

Surgeons

James Y. Welborn, M.D.
Wm. R. Davidson, M.D.
Wm. E. McCool, M.D.

C. L. Seltz, M.D.—Pathologist
C. S. Baker, M.D.—Anesthetist

I. C. Barclay, M.D.—Internal Medicine
Dalton Wilson, M.D.—House Physician

W. W. Hewins, M.D.—Urologist
W. A. Biggs, D.D.S.—Dentist
K. T. Meyer, M.D.—Roentgenologist

Associates

W. R. Hurst, M.D.
D. V. McClary, M.D.
Fierce McKenzie, M.D.
Drs. Ravdin & Ravdin
Drs. Field & Clements

The Laboratory, under the direction of Dr. Seltz, is fully prepared to make all tests of proven value in clinical diagnosis, including serology, blood chemistry, basal metabolism, examination of tissues, etc.

Containers for specimens and directions will be furnished on request.
Radium and Deep Therapy.

THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

ISSUED MONTHLY under Direction of the Council

ALBERT E. BULSON, Jr., B.S., M.D., Editor and Manager

OFFICE OF PUBLICATION: 406 West Berry Street, FORT WAYNE, INDIANA

VOLUME XVII

MARCH, 1924

NUMBER 3

ORIGINAL ARTICLES

THE TREND OF NEUROLOGICAL SURGERY*

CHARLES H. FRAZIER, M.D.
PHILADELPHIA

Neurological surgery in the past decade has made notable strides and its recognition as a specialty has been fully justified and imperative. The time-consuming study of the individual case and the time-consuming operation are prohibitive of practice in other fields. In claiming for neurological surgery a field separate and apart from that of general surgery, I have not in mind the mastery of technical details; but the necessary understanding of the physiology, anatomy and pathology of the nervous system and of the knowledge of when and how to deal with the problems and complications exclusively those of intracranial operations. Before this assembly it seems more appropriate to review the field of neurological surgery as a whole, rather than to dwell at length and in detail upon one specific problem, but first a word as to meningitis.

Meningitis, suppurative meningitis, is not an operable condition. Let us admit once and for all that one cannot drain the subarachnoid space as one would the pleural and peritoneal cavity, and abandon what I have always regarded as a futile practice, the introduction of drainage tubes into the basal cisterns, an operation which every once in a while finds a new advocate. We must wait patiently for the time when serum therapy in the treatment of pyogenic infection generally has become effective.

I am disposed to believe that as a sequela of certain infectious diseases, particularly influenza and whooping cough, there develops a meningitis of the serous type, which in its clinical expression may simulate brain tumor insofar as it gives rise to signs of increased intracranial pressure and occasionally to focal phenomena. In my clinic there have been several cases of this kind, where the subsidence of symptoms and ultimate recovery

following a decompressive operation may be offered as contributory evidence of this hypothesis.

In the management of intracranial trauma and I refer chiefly to the severe contusions and lacerations, with or without fractures, we have been forced to realize that only in the minority of cases can we, by active surgical means, reduce the mortality. We have learned by experimental study and by the examination of autopsy material that apart from the hemorrhages and lacerations an essential process in the pathology of brain trauma is an edema, a definite increase in the water content of the brain. The precise origin of the edema is still a matter of speculation, but of its presence there is no doubt, nor is there any doubt that it is responsible, as it spreads rapidly to the brain stem, for many of the fatal cases. Only by recognition of this fundamental process can we appreciate the inevitable failure to relieve the symptoms and to save the patient's life by a decompressive operation, an operation all too frequently and indiscriminately practiced in intracranial trauma. Subtemporal decompression will save life occasionally, where the increase of intracranial pressure indirectly interferes with the circulation of the medulla, but when the medulla is itself the seat of the lesion, a subtemporal decompression will be of no avail.

We have added recently to our therapeutic agents for the treatment of certain intracranial complications sodium chloride as a dehydrating agent. But unfortunately it has not proven effective in checking an advancing edema. *A priori* one might have presumed that, in the treatment of an edema, a dehydrating agent would be in the nature almost of a specific, but experience has shown us that, while the administration of sodium chloride promotes the absorption of fluid in striking fashion, when the fluid is free in the ventricles or in the subarachnoid space, we must acknowledge its inefficacy as now used in saturated solution or half strength when the fluid is tissue bound, as in a diffuse edema. Here is a fruitful field for investigation and experimental study.

However, sodium chloride therapy, intravenously or by mouth, has proven of immeasurable

*Address on Surgery presented before the Surgical Section of the Indiana State Medical Association at the Muncie Session, September, 1922.

value under certain circumstances and has become an accepted agency in our management of certain intracranial problems; in reducing brain volume when exploring the brain under extreme tension; when closing the wound under similar circumstances; as a means of relieving the terrific headache of a tight brain; or as a method of determining whether a tense cerebral hernia is due to a large tumor or to a dilated ventricle.

As infections and trauma in the domain of neurological surgery are, relatively speaking, minor issues, so the major issue may be said to be brain tumor, and let me preface my remarks on this chapter of brain surgery by reminding you that the time has come when either for purposes of discussion or for reviewing the possibilities of surgical therapy the subject must be subdivided. Just as the term "indigestion" or "dyspepsia" has been abandoned as too general and we now refer specifically to the lesion of the stomach at fault, whether ulcer, carcinoma, dilatation or what not, so with brain tumors. The time has come when we must, for the purpose of discussion, recognize different problems according to the nature and the location of the tumor. Too often I think the general practitioner throws up his hands in despair when brain tumor is suspected and allows the lesion to continue with its inevitably fatal consequences if unexplored. He should realize that there are in the brain, as elsewhere, tumors that are distinctly operable as well as those distinctly inoperable, and that without exploration it is often impossible to determine to which of these classes the tumor may belong. Hence, wherever localization is possible, the patient is entitled to an exploratory operation. An endothelioma with its origin from the meninges, with its firm encapsulation as a rule is readily removed; so too the enchondroma, the osteoma, the psammoma and occasionally the tuberculoma.

The fibro-neuroma of the acoustic nerve is a relatively benign lesion, as a rule presents a characteristic clinical picture and is therefore readily localizable, not difficult of approach, and, when not too far advanced, not difficult of removal. Here are very definite and distinct groups, presenting different clinical pictures, offering different surgical problems and each with its percentage of operative risk and eventual recovery. And quite distinct and apart from these are the gliomata, infiltrating and diffuse, only occasionally encapsulated, usually deep seated, often difficult of localization in the early stages and often impossible to remove *in toto*. But even with this unfavorable surgical type there are extenuating circumstances. As they increase in size, the central portion undergoes degenerative changes and this degenerative process with cell necrosis

spreads toward the periphery until the tumor is converted into a large cystic cavity; occasionally a remnant of the tumor may be found as a nubbin on the cyst wall.

Such was the case in a lad of nine (File No. 65844) who six months prior to his admission to the university hospital at first developed twitching about the right side of the face and then general convulsions. Because of the hemiparesis, localization was not difficult and the exploration revealed a large cyst. The evacuation of the cyst gave entire relief. A year later the patient returned with signs of recurring pressure and with our knowledge of the topography of the cyst, it was a simple matter to evacuate it, again with gratifying results.

Therefore, while fully recognizing the surgical limitations of these gliomatous tumors, and our inability to practice complete extirpations in many instances, let us not abandon them as utterly hopeless. Beside spontaneous metamorphosis from a solid to a cystic tumor, I am constrained to believe that the progress of the growth may be retarded in certain occasions by radium therapy. While not prepared to quote end results, as we have a number of cases still under observation and treatment, I am convinced that in certain of these life is being prolonged, perhaps eventually to be saved, by the combined effects of surgery and radium therapy.

We have almost outlived the era when the suspicion of syphilis was attached to most brain lesions and for weeks or months iodides and mercury were administered in enormous doses. But an occasional example of this old-time tradition may be offered in evidence that the lesson has not been learned. A few months ago I removed a large encapsulated endothelioma from a patient who for five years had been treated, now casually, now intensively, as a syphilitic, despite the fact that the Wassermann reaction had always been negative. The patient was almost completely hemiplegic, and, had it not been that painful convulsive movements developed, the true nature of his lesion probably never would have been revealed.

The frequency of convulsive seizures, as an expression of brain tumors, is not usually appreciated. In approximately 10 per cent do we find convulsions as a conspicuous, and sometimes for a considerable time, the only manifestation of tumor. These convulsive seizures may be Jacksonian in type or general; in the former instance when the tumor is in or encroaches upon the motor zone, in the latter when there is a secondary hydrocephalus. As a rather striking example of the former, I may cite the case of a patient who for ten years had been treated as an epileptic subject. Only three months prior to my

first observation did signs of increased pressure develop, with attacks of headache and occasional vomiting. The diagnosis and the localization of the tumor was readily confirmed in this case by the roentgenogram, which showed with extraordinary clearness the shadow of the calcified tumor. In this case there was perhaps some justification for the late verification of the diagnosis since, following the attacks, there was no weakness of the extremities. This is a rather characteristic feature of the focal convulsions of brain tumor, and should always arouse one's suspicion. The following abstract of a clinical record tells the story: While at the onset of his illness the patient had a violent pain in the right arm, which, with the face, began to twitch, he did not lose consciousness but for several days he was unable to talk and was partially hemiplegic. From these symptoms he soon completely recovered. An interval of two years elapsed before he had a second attack, differing from the first in that the arm alone was involved. From then there was a gradual loss of power until, when I saw him five years after the onset of his illness, he had become almost completely hemiplegic. A tumor of considerable dimensions was found and readily removed. This is a very instructive clinical record.

A study of the life history of brain tumors is intensely interesting. The impression prevails very generally I think that practically all brain tumors are malignant and as malignant growths elsewhere they run their course in one or two years. Far as this is from the truth, a rather striking feature of the life history of brain tumors is the variation in the rate of growth, and yet because among other things one finds great variations in the rate of growth and because of periods of latency, the precise duration of the growth in the individual case is a matter of conjecture. As an illustration of this latent period I am reminded of a patient in the person of a physician who, until within six weeks of the date of admission had been, so far as he knew, absolutely symptom free. The suddenness of onset and other phenomena pointed suspiciously to encephalitis lethargica. Before an exploration was even considered the patient died and the autopsy revealed a huge infiltrating glioma extending almost from base to cortex. Sometimes, I fear, forgetting these latent periods we are too critical in our attitude toward the physician, who brings his patient to the surgeon when the growth has attained great proportions, and reached perhaps an inoperable stage.

The diagnosis of brain tumor is not as a rule difficult, although one occasionally, as in the case above described, may be misled. To make the diagnosis on the signs of intracranial tension, headache, papilloedema, and vomiting, avails us

little since this triad of pressure symptoms gives no clue as to localization. Furthermore, like the metastatic lesions of a carcinoma, it usually betokens a late stage of the disease.

Insofar as concerns tumors of the occipital lobe and parietal lobes, of the zones representing the motor, visual auditory and speech centers, localization is readily made. Lesions of the frontal lobe still present problems and confusion with the psychoses cannot be eliminated in the absence of signs of pressure. While the right temporal lobe was once looked upon as a silent zone, repeated perimetric studies will show, in a considerable percentage of cases, homonymous field defects.

Because of the long course of the visual pathway, from the calcarine cortex of the occipital lobe to the retina, frequent observations of the visual fields, according to the methods of Walker, give us very important bits of evidence in the localization of brain tumors. There are the lesions of the occipital lobe represented by the homonymous hemianopsia, the lesions of the temporal lobe represented by homonymous defects in the upper or lower quadrant (according to whether the ventral or the dorsolateral bundles are encroached upon by the growth), the typical bitemporal hemianopsia of lesions of the chiasm or a varied picture as of a lesion involving one or both optic tracts posterior to the chiasm. The importance of careful repeated studies of the fields may be illustrated in the clinical record of this case.

W. R., aged 28 years, was referred to my service as a brain tumor case. Our first examination revealed, in addition to a marked choking of discs, a general contraction of the fields due to a beginning optic atrophy. The patient was so dull and lethargic that careful perimetric studies were out of the question. After a subtemporal decompression he was transformed from a bedridden to an ambulant case with relief of headache and subsidence of his papilloedema. Subsequent examination revealed a homonymous hemianopsia and because of this and other findings, the tumor at first was localized in the occipital lobe. Later, however, there developed on the other side quadrant defects; these could not be ascribed to an occipital lobe lesion, but could be explained only on the basis of a lesion of the optic tract behind the chiasm. This proved to be the correct interpretation of the visual findings. In this particular case the field defects were not due to the direct pressure of the tumor upon the optic tracts but to the pressure upon the tracts of the internal carotid artery and the middle cerebral artery. The tumor was posterior to the chiasm and as it increased in size the pressure of the arteries caused marked grooving or pressure defects of the tracts, one tract being almost completely

bisected. This mechanical effect of arterial pressure upon the tracts, though perhaps infrequent, must be taken into consideration in lesions of this neighborhood, and when associated with evidences of dyspituitarism, point rather to an extrasellar, post chiasmal lesion than to a primary intrasellar growth.

Studies of the topography of the ventricles by roentgenogram after air injection, as proposed by Dandy, is among the more recent contributions to localization of tumors. While in certain cases it may give contributory evidence, the possibilities of error of interpretation are such that the evidence should be used only as confirmatory of the neurological findings. The ventriculogram may show collapse of an anterior or posterior horn of one ventricle, complete obliteration of one lateral or of the third ventricle, or displacement of both ventricles to the right or left. These are all positive findings that may have significance, but unfortunately the ventricles are deep seated and tumors that originate in or adjacent to the ventricles are usually infiltrating gliomata, that belong to the inoperable group, so that the findings of the ventriculogram will prove, I fear, often of little practical value. The localization of deep-seated growths is one thing, their removal, without unwarranted mutilation or sacrifice of brain tissue and function, another. To convert a patient into a vegetative subject with a brief expectation of life, even though the tumor be removed, may hardly be called a surgical triumph. After all, we, as neurological surgeons, must recognize our limitations in dealing with brain lesions and while the ventriculogram frequently may prove disappointing as of practical moment, we should continue to employ it in selected cases at least until we can evaluate its usefulness in the localization of what judiciously may be considered operable growths.

Ignorant as we still are of the etiology of trigeminal neuralgia, we are masters of the situation insofar as treatment is concerned. Like the herniorrhaphies of the general surgical clinic, operations for trigeminal neuralgia are the commonplaces of the neurosurgical clinic. With the mortality reduced almost to zero, my records show a series of 121 consecutive operations without a fatality, and in the last 315 cases only one. The operation, from the standpoint of cosmetic effect and relief of symptoms, is so eminently satisfactory that there is no need of discussion or criticism. We should turn our attention to the investigation of the etiology of the major neuralgias about which we know nothing and to a better understanding of the causes of the atypical neuralgias, so varied in their expressions, so difficult of interpretation as to their origin, and so baffling as to treatment.

The surgery of the pituitary body, or the hypophysis, is one of the later ventures of intracranial surgery and I wish to present to you as briefly as I can my present attitude toward this problem. I say present attitude because we are still in the formulative stage and what may be a viewpoint today may be modified tomorrow. Withal, certain principles, as a result of frequent observation and many operations, are established pretty definitely.

The perplexities which confront the surgeon in his discussion as to operation or as to the method of operation, are many and not the least of these is the absence of uniformity in the physical findings of pituitary disorder, especially in the diversity of the visual disturbances. It must be assumed, in the first place, that the surgeon's responsibility begins only when there is a pituitary tumor, which by pressure on chiasm or optic tract, threatens the patient's vision, and I may say by way of parenthesis, as emphasizing needless delay, that over 50 per cent of my patients at the first examination, have been found already totally blind in one eye. The structural changes of glandular origin either of the acromegalic or dystrophic type are not to be considered as among the indications for operative attack.

In our approach to the pituitary we must elect either the transphenoidal operation or the intracranial transfrontal approach. Taking for example a specific case: This patient, middle aged, has for several years noticed that the vision of one-half the field of the right eye was obscured. The precise nature of the lesion not appreciated, she drifted on and little by little the vision of the eye was impaired and then totally lost. In course of time vision of the left eye became impaired and she began to have paroxysmal headaches. She then became alarmed and found her way to the neurosurgical clinic. An examination revealed total atrophy of the right optic nerve, beginning atrophy of the left and hemianopsia, a decidedly excavated sella, and a low metabolic rate. Under these circumstances, I invariably perform a transphenoidal operation, remove the floor of the sella turcica, evacuate the contents partially with forceps and curette and before the patient is discharged, prescribe a course of radium therapy to be repeated at intervals of six months. That is a perfectly simple problem, and should admit of no dispute. The risks of this operation are almost negligible; I have had no fatalities since 1919, and the freedom from operative risks is, after all, the most important factor when considering the choice of operation.

To cite another case, take for example this boy, 17 years of age, dwarfed in growth, with partial optic atrophy, an enormous sella with disappearance of posterior clinoid processes. The

x-ray showed in outline a suprasellar calcified tumor, as large as a hen's egg. The approach to this tumor was made, naturally, by a transfrontal exposure. The tumor proved to be a large cyst with a thick calcified wall. The cyst wall was partially excised, its contents evacuated, returning vision improved and with it the somnolence and headache. In other words, when there is evidence of an extensive intracranial lesion, the indications as to method of approach are equally clear. But there are many cases where the symptoms are difficult of interpretation as to whether the lesion is wholly within the confines of the sella or largely extrasella, as in tumors of the pouch of Rathke or of the hypophyseal duct, and in doubtful cases the first attack should be transphenoidal, with the realization that should there be recurrence or should evidence develop later pointing more clearly to a suprasellar growth, a second attack may be made by the intracranial route.

The evaluation of the surgical methods of treating pituitary tumors must be based on two factors, the operative risk and the period of relief. Since radical extirpation of the sella contents is not feasible, recurrence of visual disturbances must be reckoned with. And it is for this reason that as part of our routine technic radium therapy is prescribed as an essential phase of the treatment. The influence of radium upon pituitary adenomata has been established. From my own experience I could cite an example of the subsidence of recurring symptoms after operation under radium therapy as well as an example of the enlargement of the visual fields under radium therapy alone. Because of the effect of pituitary lesions in distorting the visual fields, these lesions afford an excellent opportunity to observe whatever plan of treatment one may elect. Within the year I have had under observation a young lady with the incipient signs of pituitary disorder. There was yet no expansion of the sella, but the cut in the fields was more than suggestive and after a course of three treatments there has been such a decided enlargement of the fields that the necessity for operation has been averted, for the time being.

In conclusion, if we may judge from the stride of the past decade, greater achievements in neurological surgery may be anticipated in the future. Of this there can be little doubt. And while in part these achievements will be the product of refinements and contributions to technic, they will, I believe, in larger measure be the result of greater accuracy in diagnosis and in localization. The surgeon enjoys an unusual opportunity and should recognize this obligation in the course of his operative experience, to make substantial contributions to the localization of

brain lesions. Just as much that we learned of the perverted physiology of the thyroid gland has been derived from the results of surgical intervention, so with the perverted physiology of the brain and the hypophysis, the surgeon is offered a large and fertile field for constructive contributions.

THE USE OF X-RAY AND RADIUM IN SUPERFICIAL MALIGNANCIES*

A. M. COLE, M.D.

INDIANAPOLIS

Before taking up the discussion of the treatment of superficial cancer I wish to present briefly a few general considerations bearing upon this subject.

The first fact to be kept in mind is that the majority of superficial cancers have their beginning in simple and usually innocent lesions of the skin, such as warts, moles, keratotic areas, erosions and wherever constant irritation exists. The danger of these lesions becoming cancerous should never be lost to sight. Pigmented lesions such as moles are the most dangerous. Twenty years ago Dr. W. W. Keen, of Philadelphia, one of the most prominent surgeons of this country, wrote a book upon this subject, pointing out the danger of ignoring these benign lesions of the skin and mucous membrane. Dr. Keen flays the profession for its ignorance and neglect



(a)

(b)

1. Epithelioma—began 2½ years ago. Was spreading rapidly at time of treatment. Patient had multiple senile keratosis on face.

(a) November 13, 1922.

(b) April 30, 1923.

in ignoring these precancerous conditions. It is just as criminally obtuse and ignorant to minimize or neglect a chronically inflamed wart or mole as to make light of a tumor of the breast; yet I regret to say that this occurrence is not uncommon in the medical profession. Patients also ignore these lesions even after cancer is

*Presented before the Section on Medicine of the Indiana State Medical Association at the Terre Haute Session, September, 1923.

fully established. Many think that the absence of pain rules out cancer.

I wish also to call attention to the reprehensible habit of treating cancerous lesions, whether diagnosed cancer or not, with mild caustics, which always stimulate the growth and do great harm. It is better to do nothing than pursue such treatment. Either totally destroy them or leave them alone. It is not uncommon in my experience to see cancerous lesions treated for months with

lesions, and in papillomatous skin cancer with elevated growth and later ulcerated surface with the characteristic transparent yellowish thickened borders and proliferated base.

As to prognosis, the same rule applies to deep cancer. The earlier treated the better chance for cure, and when glands are involved the outlook is unfavorable.

Superficial cancer in the beginning is almost always a local affection, and a destruction of all of the diseased cells brings about a cure. The problem seems easy, and in some cases where the lesion is small and the location favorable it is so. However, in a large percent we must meet conditions which are very difficult to overcome and sometimes insurmountable. The location of the lesion is of first importance. Those about the eye and ear present unusual cosmetic difficulties. The tissue must be preserved and scarring avoided if possible. Lesions involving nerve trunks or other important structures must be studied carefully and a treatment employed which will leave no undesirable after effects. Glandular involvement must be controlled and recurrence avoided. The end to be reached is complete destruction of the cancerous cells without undesirable scarring, without recurrence, without normal tissue impairment, and without metastasis to glands or lymph structure.

The means employed in the treatment of superficial malignancies may be described in three classes: Surgery, caustics of a chemical source, and radiation. The knife may be used successfully in some favorable cases. Wide incisions



2. Epithelioma involving inner canthus and part of cartilage of upper lip.
(a) June 15, 1922. (b) August 11, 1922.

such superficial caustics as nitrate of silver, and the malignant growth getting larger all the time.

In the matter of diagnosis much might be said. I shall confine myself to brief statements. In general I follow the rule of viewing any lesion, especially about the face, with suspicion if it has existed over a period of several weeks. This is especially true of the lip. The most common mistake is to diagnose epithelioma as *lupus vulgaris*. The latter is exceedingly rare, and is a disease of youth while epithelioma is a disease of middle and old age. Syphilis may at times simulate cancer. A Wassermann should be resorted to frequently. A vast majority of these superficial malignancies show themselves about the face, especially about the nose and eyes.

As to pathology, the facts to be kept in mind are the infrequency of metastasis; the difference in the grade of malignancy as between the basal cell and the squamous cell type. The clinical forms show themselves as the superficial, the papillary and the deep. A rodent ulcer is a superficial epithelioma, showing distinct characteristics, especially the absence of metastasis. The deep type is the dangerous one, as it is prone to infiltrate the subcutaneous structures and to spread by metastasis. When well established it offers great difficulties to any form of treatment. In this group belong the skin carcinoma from breast cancer, and other deep malignancies. The other form is the papillary, as noted frequently in lip



3. Epithelioma of basal-celled type apparently ulcerated down to periosteum. Had been present for over five years. Healing slow but complete in (b).
(a) January 13, 1922. (b) December 11, 1922.

and complete removal may suffice, but cosmetic effects often are disfiguring and recurrence common. Deeper cells are not reached and the results are failures. Incomplete removal is worse than no treatment at all. Many cases about the eye and nose are contiguous to important structures prohibiting the use of the knife. Many

authorities advise strongly against it. Many believe that surgery opens up lymph channels and promotes glandular involvement.

Caustics have been used for many centuries in the treatment of cancer. Their names are legion. A few come down to us possibly because of some real merit, or their adaptability to special conditions to be met. The best known of these remedies is arsenic in the form of a paste which has been used widely. It probably has become

of its advocates, are based upon a solid foundation. Its physiologic effect upon cell life is not found in any other agent. Its destructive effect upon embryonic cells constitutes a real specific. Cancer cells are of this type and can be reached by lethal doses without injuriously affecting the normal cells. In addition to its effect upon the abnormal cells, radiation also has penetration which reaches the deeper parts and is perfectly controllable. In the whole field of therapy no remedy for any disease has greater merit. It is even comparable with quinine for malaria and mercury for syphilis. Its success is based upon a real specific action which is controllable, safe, painless, leaving very little scarring and with recurrence very uncommon. Its failures are due mostly to improper technique and inadequate doses.

In recent years great improvement has been made in technique. We are now able to measure the dosage as accurately as in drug therapy. The so-called x-ray burn is rare. Dosage must be adequate, and in most cases must approximate the maximum tolerance of the healthy cell. The so-called "fractional" doses are inadequate and should not be used in severe types of malignancies. We use "massive" doses, and aim to produce a lethal dose in one or at most a few treatments. I repeat that inadequate dosage is the most common cause for "no cure". The fear of a burn has excited the imagination and this spells failure. I would not depreciate nor ignore the skill required to use radiation treatment. The novice should leave it alone. Like every method of therapy, skill and experience must be followed. Potential dangers must be foremost in mind; a third degree x-ray burn is not a trivial matter.

Unfortunately no exact technique can be formulated. Conditions vary to such a degree that no stated dose can be followed. What would be a technique for one apparatus would not be for another. This is true of the x-ray particularly.



4. Large epithelioma.
(a) January 17, 1923.

(b) March 30, 1923.

the surest ammunition for quackery in the civilized world. In every city and good sized town the cancer quack thrives. With his secret remedy as a sure cure for cancer he works upon the suffering and credulity of his unfortunate victims. With newspaper advertising and "runners" who lead the afflicted into his net he has become a scourge and stigma on the medical profession. Our laws seem impotent and the public pays the price. On the other hand, arsenic has for its exponent such a good authority as Robinson of New York. It probably is the best chemical caustic, but all caustics possess the vital objection of uncontrollable action. They affect alike skin, subcutaneous tissue, bone and cartilage. Great sloughs are produced, and terrific pain. The cosmetic results are often hideous, and cancer recurrence common.

The actual cautery and electro-coagulation possesses considerable merit. The cautery lacks depth of penetration, but its heat we know has a marked deterrent effect upon the cancer cells. Electro-coagulation has greater penetration and has become a useful adjunct. It is our best means of destroying hypertrophic tissue. Small skin lesions, simple or malignant, are efficiently destroyed by "fulguration" or electro-coagulation.

The radiation treatment of cancer is a new contender in this field. The x-ray, and more recently radium, have come to occupy a most important place in cancer therapy. The real merit of radiation in cancer, and the enthusiasm



5. Epithelioma with extensive cartilage involvement. Healing in this type without loss of tissue is unusual.
(a) September 2, 1922. (b) November 27, 1922.

With radium the conditions are not so exacting. With both the factors of safety are not only mechanical, but are concerned with the patient himself. The most important factors are the nature of the lesion, its position, its size, its age, the absence or presence of glandular involvement, etc. With these conditions and complications technique may seem difficult; they are not, however, insurmountable.

In general, find your erythema dose, with and without filters. This can be done readily with any apparatus. Beginning with the theoretical dose, one can easily arrive at the practical erythema dose. In many skin diseases this is not exceeded. In malignancy the erythema dose is only a guide; it is often exceeded many times.

Our success in reaching widespread and desperate malignancies has been due largely to the "super" massive doses used. We have not hesitated to increase our dose enormously after the method of Grier and Bowen. Our results have been most encouraging and in some cases aston-

prefer radium, either superficially or buried. We nearly always follow this by electro-coagulation plus heavily filtered x-ray on the draining glands. Wherever we suspect or find cancerous metastasis, we go after it hard with our filtered x-ray. In some cases we have had the glands removed surgically, followed by burying radium at the site of the gland.

CONCLUSIONS

1. The radiation treatment of superficial cancer is far superior to any other therapy. The treatment by caustics should not be used, and the knife should be used but rarely.

2. In advanced and widespread epitheliomas the "hyper massive" x-ray technique gives splendid results. In some cases radium and electro-coagulation are useful adjuncts.

3. Failures when found are due almost always to inadequate doses. The "fractional" technique should not be used except in very superficial lesions.

4. Lip cancer is best treated by radium followed by electro-coagulation with heavy doses of filtered x-ray to the glands.

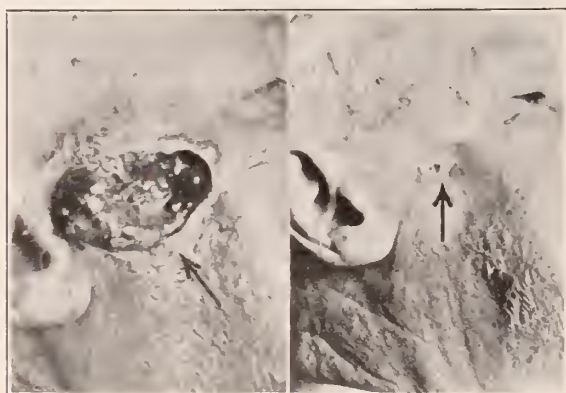
DISCUSSION

DR. H. J. PIERCE (Terre Haute): X-ray was very much in disrepute for a great many years because, like all new things, it was used to treat all types and forms of disease and a great deal of damage was done, such as that from burns. Very few had the courage to continue. Dr. Cole is one of the few who started and is still with us. He found what could be done and persistently kept at it and is able to show us today that specific things can be done if you know how. He has worked out the doses of x-ray just like the doctors of years gone by had to work out their doses of drugs. He is able to tell you the dose of x-ray for a certain skin lesion the same as you are able to tell the dose of morphin or digitalis. He also is able to tell you when x-ray is contra-indicated.

On examining a case it is well to decide first whether we are dealing with a new growth, an inflammatory process or a neoplasm. If it is a neoplasm, whether benign or malignant; if malignant, whether a basal cell type, squamous, or sarcoma.

The history is very important—the age of the patient, because very seldom do we see malignancy in the skin of a patient under thirty years of age. The occupation should be considered because the individual who is in the actinic rays most is apt to develop basal cell type; also one should note if the patient has had any keratosis preceding this growth, or pigmented mole, the most malignant type of skin lesion we have to deal with, because of the metastasis, melano-carcinoma or sarcoma.

We should know how long the growth has been present. In a way this will tell us the type of



6. Epithelioma which had been treated elsewhere with radium for two years, usually considered unfavorable type. (b) shows a slight crusting, no ulceration.
(a) March 30, 1922. (b) August 21, 1922.

ishing. We repeatedly have brought about cures in widespread malignancies that we formerly failed to reach. I feel sure that by no other method of treatment could such results be obtained. In nearly all of these cases the x-ray has been relied upon chiefly, with radium at times in suitable conditions, especially involvement of cavities. In some cases electro-coagulation has been a most successful adjunct.

In our experience the x-ray has been decidedly superior to radium. This superiority is due principally to the different methods of application. The distribution of x-ray is uniform over the surface, whereas that of radium is "spotty". The size of the lesion is never too large in surface to be covered by one exposure from the Crookes' tube, while with radium at times it may be necessary to make many exposures to cover the surface.

In cancer of the lower lip in most cases we

cell we are dealing with, taking for granted that all the tests for syphilis have been made. Pain and hemorrhage are rare in superficial carcinoma unless they be very extensive.

Dr. Hazen states that the most virulent type of skin lesion is the pigmented mole, not the elevated, hairy type, but the flat pigmented common mole. There may be extensive metastasis **in the viscera from these moles.** One of our cases developed this from a small pigmented mole just under the left shoulder blade which became irritated from riding in an automobile. No particular attention was paid to it by the patient for a number of days. About three weeks following I saw him and at that time there was no evidence of involved glands any place. We made an application of radium to the area and he developed a violent reaction in a very few days. After this subsided it healed in a month's time, leaving a smooth area. On examination we found large glands in the axillary region, and the inguinal region, the patient developed a cough which was very irritating and died from general metastasis which involved the viscera.

Our form of treatment has been that if there is any question about the type of cell we ray the area around the growth by x-ray, apply radium to the growth if it be small, and coagulate the growth if it be large.

DR. B. R. KIRKLIN (Muncie): I merely want to emphasize one point Dr. Cole made and that is the development of a resistance or tolerance to the rays, caused by continued irradiation of these malignancies. I have in mind one case which I think will illustrate this point in a most striking way. The patient was a man of seventy years who presented himself to us with an extensive cauliflower malignant growth involving the entire lower lip. He gave a history of having a small lesion of about one cm. in diameter on his lip for many years, and had been receiving x-ray therapy over two years by a general practitioner who had a suitcase portable x-ray machine in his office. Five weeks before consulting us he was visiting in a distant city and his host suggested that he see a doctor there who is one of the leading radiologists in the country. This doctor, according to the patient, reported that he could make out no evidence of a glandular metastasis and that he could promise him a complete cure with one treatment. The lesion measured about one cm. in diameter at this time. He did not, however, question the patient as to the former treatment received, therefore did not know that he had received two years' treatment with a small x-ray machine. He treated the patient with what he or anyone else would consider a maximum lethal dose of radium for a lip malignancy which had not received previous small x-ray exposures. He consulted us just five weeks after he had received radium, and because he was considerably alarmed that the growth on his lip had

suddenly started enlarging after the radium treatment. Upon examination we found the entire lower lip involved, and a large gland on the left side of the neck about the size of a hickory nut which the patient stated had made its appearance during the previous three weeks.

The supermassive method of treatment had just been reported by Dr. Grier and we hesitated to try it upon this old gentleman, but in view of the fact that he would not consent to have surgery or cautery used, we decided to use this method of treatment, which we did by giving him a dose of 250 minutes on the lower lip. Within three weeks the growth had entirely disappeared and the lip was practically healed. It was almost magic. We also used deep therapy on the glands of the neck, but it did not have much effect. It retarded their growth somewhat, but eventually they continued to enlarge in spite of the radiation and the patient died.

The point which I wish to emphasize is the importance of carefully questioning the patients as to any sort of former treatment which they may have received, and to gauge our dose of treatment accordingly. I believe that the supermassive method, so excellently presented by the essayist, is the treatment of choice.

DR. THOMAS C. KENNEDY (Indianapolis): I do not desire the inference to be drawn that I question the claims made by Dr. Cole for the x-ray. Dr. Cole was a pioneer in x-ray work, has treated many of these cases successfully, and he knows what he is talking about. The cases which are cured with x-rays have no occasion to come to me for treatment, but when the x-ray fails then they come to us for the radium treatment. On the other hand, we do not know how many of our failures with radium go for x-ray and are cured.

In regard to electro-coagulation, this is coming into use very rapidly in the treatment of malignancies. We use it in all of the mouth cases, as I believe it is the treatment of choice, but in the treatment of the lesions of the lip, and superficial lesions of the face, the radium is so uniformly successful that we prefer the use of radium.

The glands of the neck should be rayed intensely to prevent metastasis. However, we have found that even when the glands of the neck have progressed to suppuration, the case is not necessarily hopeless.

I wish to speak of another method of treating cancer, although not so applicable to the class of cases we have been discussing, but more particularly to cancer of the uterus and abdomen.

It is well known that heat is the best destroyer of cancer cells. Cancer cells are destroyed by a lesser degree of heat than the normal cells. With medical diathermy we can heat the internal organs, the liver, stomach, and uterus to such a degree that the mitotic action of the cancer cells

possibly may be checked. With a thermometer in the uterus we have found that we could readily produce a temperature of 107 without affecting the normal tissue or producing any pain to the patient. This is very close to the point at which it is said cancer cells will be killed. We are working on the theory that the growth of the cancer cells will at least be checked, then by following with radium we will get more effective action. We have not used this treatment in a sufficient number of cases to make any definite claims or to draw any definite conclusions. I only mention it so that if anyone so desires to do so he may try it, and perhaps with a number of workers in this field we can arrive earlier at some trustworthy conclusions.

USE OF PARHAM-MARTIN BANDS IN FRACTURE OF THE LONG BONES*

E. B. MUMFORD, M.D.
INDIANAPOLIS

The treatment of simple fractures is either by the closed or the open method. The method to be used is determined by the type of fracture, the operative skill of the surgeon and the environment of the place of treatment. The simple or closed method should be attempted in practically all types of fracture, although there are certain types in which an open reduction is indicated at once. In those cases, however, in which the simple method fails to give the proper prognosis an open reduction should be done. Granting the small percentage of infections which will occur in the operative work, the end result of the good operative work is much better than the end result of poor non-operative work.

If the open method is used it will often be found that such perfect reduction of the fragment is obtained that any form of internal fixation or splintage will be unnecessary. However, should this not be the case then one will have at hand several mechanical means to hold the fragments from which to choose and his experience will lead him to use that method by which he has been most successful. Copper and silver wire, kangaroo tendons, Lane plates, metal bands, inlay or sliding autogenous bone grafts, ivory or beef bone plates, transfixation nails, intra-medullary pegs, all are methods which have had their enthusiastic supporters.

It is the purpose of this paper to present my experience with the metal bands, rather than to discuss the merits and disadvantages of the numerous devices which have been used.

The Parham-Martin band has been in use for many years, and yet its use, to my knowledge, is not general. The band is made of a special alloy and is about one-quarter inch in width. Its application by a special instrument is ex-

tremely simple and does not require any surgical or mechanical skill.

The advantages in the use of the broad metal band which have come in the writer's experience are as follows:

- (1) The simplicity, ease and rapidity of application.
- (2) The slight amount of traumatism to soft and bone tissue.
- (3) The band seldom has to be removed.
- (4) It can be applied to any type of fracture, the Collins band being substituted for the Parham-Martin band in cases of transverse fracture.
- (5) It does not prevent the formation of good, firm bony union.
- (6) It can be used in fractures complicated by infection or by syphilis.
- (7) It can be used in any age of the patient.
- (8) It will give such firm fixation of the fragments that extension is not necessary and motion in the joints can be begun at an early date.
- (9) The firm fixation makes it almost "fool proof" so that the after treatment and care is not so tedious.

The objections which have been presented are that the bands act as any foreign material, leading to delayed union, and thus have to be removed, and also that an excessive callus frequently occurs. In my cases there has not been any case of delayed union and the band was used successfully in one case of delayed union of twenty-eight weeks' duration. In only two cases has the band been removed, one complicated by syphilis and one by infection. It was also only in the syphilitic case that an excessive callus was noted.

CASE 1—E. B. Compound comminuted fracture, clavicle. Injured August, 1923, in automobile accident. Operation forty-two hours after accident. Parham-Martin band. Mild infection developed on third day after operation.

In this case the interesting feature was the reduction of the fracture. The patient was brought to the edge of the table and the arm on the injured side was allowed to hang down. The fragments of bone fell into a normal anatomical position and the band easily tightened.

CASE 2—G. W. Oblique fracture, humerus. Injured September, 1918, while throwing a baseball. Parham-Martin band. Returned to duty as a soldier at end of six weeks. Second series of plates at end of four months show an excessive callus formation. Wassermann not made. Good function result. Band still in bone and has never caused any disturbance.

This case of interest from etiology of fracture. This patient had pitched six innings of the game when the fracture occurred. The soldier who took his place had a comminuted fracture at the lower end of the humerus as he started to pitch

*Presented before the Section on Surgery of the Indiana State Medical Association at the Terre Haute Session, September, 1923.

the thirteenth inning. Two other cases of fracture of the humerus caused by throwing a baseball came under my care during that summer in France.

CASE 3—G. M. Fracture of humerus, delayed union. June, 1922, patient fractured humerus in an accident. Arm in simple bandage splint. At end of twenty-sixth week came to me with a delayed union. Wassermann two plus. Operation January, 1923. Fragment united by fairly firm fibrous tissues but in poor position. Ends of bone freshened and Parham-Martin band used. No infection. Returned to work at end of seventh week. Good result.

This case would indicate that the bands do not interfere with callus formation and also that syphilis is not a contra-indication in operative procedure.

CASE 4—C. C. Fracture of radius and ulna, delayed union. Both bones of forearm fractured in an accident.

Eight weeks after accident operation to correct over-riding with delayed union. No infection. Good result as to union. Slight angulation in ulna.

CASE 5—J. S. Fracture of femur. Child three years old injured in February, 1923. Long spiral fracture which could not be held in position by simple means. Operation March, 1923, two Parham-Martin bands used. No infection, child began to walk at seventh week. Good result.

This case is of interest as to age of patient as in case 6. The presence of the band has not interfered with the development of the bone. The functional result was good. Two bands were necessary on account of the length of the line of fracture.

CASE 6—G. M. Fracture of femur. Child referred by Dr. Overshiner of Columbus, Indiana. Injured August, 1921. In September, 1921, fragment displaced and union delayed. Operation same month. Parham-Martin bands. No infection, good functional result. Child examined in July, 1923. No shortening, function good, no pain.

This case of interest in that the x-rays taken two years later show an apparently normal femur and not any excessive callus.

CASE 7—B. A. Compound fracture of femur. Patient shot by policeman in November, 1922. Treatment at first by extension and casts. Examined first by me in January, 1923. At that time there was a delayed union and poor position. Operation January, 1923. Parham-Martin band. Patient did well but had a fall in April, 1923, causing a refracture. Wound opened for replacing of bands. Infection followed band removal. End result in this case was very poor.

This case shows that infection must always be considered and also that in fractures of the femur in which fixation of any kind extending over a

period of many months is very apt to give a considerable loss of function in the knee and hip joints.

CASE 8—J. Fracture of femur. Injured in a fall July 20, 1923. Reduction attempted under fluoroscope but unable to obtain a position which would keep fragments in position. Operation August, 1923. Collins band. At time of operation a large piece of muscle found between the fragments. No infection. Patient still in hospital.

The Collins band used on account of the transverse character of the fracture.

CASE 9. Fracture of femur. Case operated by Dr. Murray Hadley and plates shown by his courtesy. Collins band used. No infection.

CASE 10—C. B. Fracture of tibia. Injured by auto July 20, 1923. Unable to obtain reduction under fluoroscope. Operation August 1, 1923. Parham-Martin band. No infection, good function result.

In this type of case it is my opinion that operation is indicated at time of first examination. Not only is it difficult to obtain a perfect reduction but to maintain this position requires extension and fixation for at least four weeks. Perfect reduction is essential on account of the knee and ankle joints being hinge joints which must act in a perfect anatomical position. Any rotation of the foot will disturb this relation in the action of these two joints. Extension is also difficult on account of the short lower fragment and any extension through joint is very apt to cause a loss of function in that joint. This is especially true in the ankle joint.

CASE 11—J. C. Fracture of tibia, comminuted. Operation July, 1923. Parham-Martin band. No infection. Good function results. Patient September 14, 1923, using a cane.

CASE 12—S. E. Fracture of tibia. Patient stepped off curb, causing fracture, January, 1923. Operation second day. Parham-Martin band. No infection. Returned to work seven weeks later. Wassermann four plus. Excessive callus.

September 1, 1923, patient felt a weakness in the leg. Examination showed a false motion at line of fracture. Band removed. No infection. Now in a plaster cast. End result undetermined.

The diagnosis of syphilis was made while patient was being undressed as he did not have any pain at this time. The excessive callus probably due to the syphilis. Refracture may have been due to presence of band or to syphilis.

CASE 13—F. B. Fracture of tibia, compound, comminuted. Patient fell out of a cherry tree July, 1923. Operation at once. Debridement. Parham-Martin band and wound closed without drains. No infection. Patient returned to work at end of eighth week, using a cane. Good motion in ankle. Wassermann four plus.

Syphilis was suspected in this case on account of the comminuted type of the fracture.

DISCUSSION

DR. L. W. ENSMINGER (Indianapolis): The subject of the treatment of fractures of long bones is always interesting because in so many instances the results obtained are not satisfactory, even after long weeks and months of effort. The advocates of the Parham-Martin band claim for that band simplicity of application, rapidity with which it is applied, the avoidance of infection, and in the end functional results. There is no question about the rapidity and the simplicity with which the band can be applied to the case on which it is used, and as a rule it is used successfully on oblique or sliding fractures. If it is used in transverse fractures it must be accompanied by a parallel band, a Collins band such as was shown in the films.

As for infection, I am of the opinion that that comes from faulty technique or from some other cause and not from the band itself.

There are other means by which coaptation of fractured bones can be made successfully and held firmly until union takes place. Chronic gut or kangaroo tendon are frequently chosen as preferred material in holding fractures together. Personally, I favor the latter, but there have been cases in which the use of the Parham-Martin band is particularly adapted and I have used this band successfully. Some operators oppose the removal of the Martin band unless an infective process is present. On the other hand, there are operators who advocate its removal under any condition because of the presence of a localized sequestrum which is frequently found at the time of the removal of the band. I have removed a number of these bands and have found this condition to be present but the bone apparently has not been affected beyond a limited area. A thin scale of bone usually is detached easily after the band has been taken out. Occasionally, a large amount of callous is found around the band and reports have been given in some cases in which this callous has caused a great deal of pressure pain.

Functional treatment should be begun as early as possible. With the use of the band, it can be carried on by a skilled person at the end of three or four weeks, but if an absorbable material is used, such as kangaroo tendon, the possibility of a separation of the fragments is much more liable to occur even if the treatment is carried on by a qualified nurse than it is if a band is used.

In the employment of any kind of inside support, extreme care should be used when the treatment of passive motion and massage is begun.

DR. G. D. MARSHALL (Kokomo): I have never had any personal experience with the Parham-Martin band, so I cannot speak from that standpoint. I can discuss the paper only from

the standpoint of fixation by internal means. I think the Doctor in his statements has been very conservative, and I think he is right when he says we get good results and better function than with operative measures. It has been my observation that no subcutaneous tissue does any good unless it is covered with skin, that the metals are more or less irritating. There has been a series of experiments conducted at Minneapolis, burying the different metals in the femurs of rabbits and an estimation made of the amount of oxidization and bone absorption that occurred, and they found that stellite is the least irritating of any metal that could be put into the tissues. However, that metal would not be practicable to use in Parham-Martin bands because it is not ductile enough.

I think the value of any internal fixation is very much overdrawn. You take a band from a mechanical standpoint, even in a sliding or oblique fracture, and the power is very weak. An ankle would have to be handled with a great deal of care or the bone at site of fracture would snap off after the band is applied. I think, too, that there is too much stress laid on the attempt to get early manipulation of the joint, getting it to function. I would be very much afraid to trust a limb that had been fractured with weight-bearing in six or seven weeks. In my own practice it is my policy to consider six weeks enough for tentative union, but not enough for weight-bearing, and that often we get deformity at that time, no matter what treatment is instituted. I think these fractures should be protected for a longer time.

As to the production of rotation in these fractures, I think that is one of the hardest things to overcome, but by putting them in a Bradford abduction splint you absolutely prevent rotation. Then I think you do much less damage to do a tenotomy on the Achilles tendon.

One of the greatest difficulties we have to overcome in the way of disability in fractures of the lower leg is to get the foot with a dorsal flexion of 90 degrees or more. That and the dropped toe can only be prevented by external splinting.

DR. H. R. ALLEN (Indianapolis): Some years ago an Indianapolis physician took his wife to Johns Hopkins for examination. An x-ray of her hip showed a metallic band surrounding the cylindrical part of the shaft of the femur, but she did not know how it got there. Finally her mother explained that it was a gold band put on by my father almost fifty years ago, when this woman was a little girl. Had the fracture been near a conical area instead of a cylindrical area, a turn of wire would have been used and held at a fixed level by one or more notches cut in the periphery of the bone. A round wire has many advantages over a flat metallic band for some purposes. A flat metallic wire encircling a cone will touch only upon one edge that is nearest

the base of the cone; the rest of the band is free from contact. Another good point is the ease with which it can be removed after it has served its purpose. It may be well to keep in mind that there are internal absorbable and removable splints that will do all a permanent foreign body splint will do.

DR. E. B. MUMFORD (closing): The purpose of my paper was to bring out the importance of treating fractured bones. It is not given as a 100 percent proposition. It is useless for any man to say he has anything of that kind. When it comes to operative work on fractures of the long bones it has been my policy to have at hand several different ways of internal fixation, sometimes a band, sometimes a splint, sometimes kangaroo tendon. Sometimes you do not need fixation at all. The purpose of the paper was merely to present one of the means which appeals to me on account of its simplicity, and second on account of the fact that by this treatment you should get early motion in the joints. I fear the disability in the joints more than the disability in the fracture line.

TUBERCULOSIS OF BRONCHIAL LYMPH GLANDS*

THOS. J. BEASLEY, M.D.
INDIANAPOLIS

Tuberculosis causes a variable and complex pathology which presents a symptomatology that does not lend itself to easy interpretation. This is especially true of tuberculosis of bronchial lymph glands.

Not a few cases of tuberculosis are observed in which a diagnosis is made by positive sputum findings, while at the same time the clinical picture presented is not at all typical of pulmonary tuberculosis. Many of these cases are caused by tuberculous necrosis of a single bronchial lymph gland which ulcerates into a bronchus without invasion of the parenchymatous tissue of the lungs, and it is the purpose of this paper to discuss this type of tuberculosis.

We cannot intelligently approach the consideration of this subject without first reviewing the normal anatomy of the bronchial tree, especially as related to location and distribution of lymphoid tissue and the direction of the lymph flow. Miller, in his article entitled "Some Essential Points in the Anatomy of the Lungs," states that he failed to find lymph nodes or lymph follicles in normal alveoli, but did find masses of lymphoid tissue situated between the muscle coat of the air cells and the accompanying branch of the pulmonary artery. Along the larger divisions of the bronchial tree lymph nodes have been described. In each instance they were found in the angles formed by the dividing bronchi. He also states that the direction of the lymph flow in the lymph-

atics of the bronchi, the arteries, the main venous trunks and the greater part of the pleura are towards the hilum of the lung.

This understanding of the distribution of lymphoid tissue and the direction of the lymph flow in the lungs throws some light upon where tuberculous infection begins, and how it is disseminated through the pulmonary tissue. The abundance of the supply of lymphoid tissue about the hilum of the lung, and the flow of lymph from the periphery towards the hilum would thus account for the common skiographic observation of calcified lymph glands in this area which have been the site of tuberculous infection, thus proving that these bronchial lymph nodes are the first barrier or outpost of defense against the invasion of tuberculosis.

After this brief review of the lymph flow and anatomical distribution of lymphoid tissue of the lungs, we can now better consider the pathology and bacteriology of tuberculous infection of bronchial lymph glands.

Dunham, in his article on "The Relation of the Pathology of Pulmonary Tuberculosis to Roentgen Findings", has shown that tuberculous lesions start in the lymphoid tissue within the lungs and are spread first through the lymphatics; later by breaking into a bronchus, and later still by breaking into veins. He believes that the tubercle bacilli primarily do not cause a lesion in the capillaries or in the air passages, although they must enter the lung by one of these avenues, but that the bacillus is generally removed from the ductulus alveolus, as is carbon, to the lymphoid tissue centers before the germ has caused a pathological lesion in the air passages.

Dunham further states that he believes in the vast majority of cases of pulmonary tuberculosis the bacillus enters the air passages with dust and soot, and is carried into the smaller bronchial subdivisions beyond the ciliated epithelium as far as the ductulus alveolus and the ultimate lobule. From there it is taken by the large phagocytes before the bacillus has caused any infection at its point of lodgment and is carried to the lymphoid tissue, which is abundant in this locality. If neither the phagocyte nor the lymphoid tissue is able to destroy the invader, or if the lymphatics cannot sufficiently drain the part, a tuberculous lesion develops in, or near, the lymphoid center, followed by necrosis, caseation and the formation of cavities. He shows the route of infection from the lymph nodes to the parenchymatous structure of the lungs to be by continuity of lymphoid tissue from which the lymphoid cells extend like pseudopodia through the interstitial tissues surrounding the neighboring air cells. Thus the manner of invasion, infection and dissemination has been shown. Now if necrosis takes place and the nodes soften, disintegrate and break into a bronchus, it may be

*Presented before the Section on Medicine of the Indiana State Medical Association at the Terre Haute Session, September, 1923.

spread very easily by aspiration. The tubercle may break into a blood vessel and be disseminated by means of the blood current. Thus we have a spread of infection by aspiration and circulation. The writer is grateful for the privilege of having spent some time with Dr. Dunham, and to have had these facts elucidated by having studied his skiograms, micro-photographs and schematic drawings.

After this review of the anatomical distribution of lymphoid tissue, the direction of the lymph flow, the invasion, infection and dissemination of tuberculosis in the lungs, we are now better prepared to consider that type of tuberculous infection of the bronchial lymph glands in which there is necrosis, disintegration and eruption into a bronchus, which gives rise to a classical presentation of symptoms apart from any involvement of the parenchymatous tissue of the lungs.

This type of tuberculosis is frequently observed, but few indeed are they who are so fortunate as to escape a more extensive and destructive involvement. When an infected bronchial lymph node undergoes necrosis and discharges into a bronchus it manifests itself by providing a typical clinical picture, characterized by a peculiar bronchial cough of sudden onset with a moderate or slight amount of expectoration of muco-purulent pus usually tinged with blood, or more often hemorrhage of moderate degree. Examination, or repeated examinations of the sputum will often show tubercle bacilli, or failing in this, inoculation of guinea pigs will often confirm the diagnosis. These cases will show a slight elevation of temperature, usually in the afternoon, and if no dissemination of the infection occurs this subsides in a few days. Nevertheless, observation of such cases must be prolonged in order to detect a definite focus of infection which may manifest itself in the functioning tissue of the lungs.

Physical examination of the lungs at this period may present no definite findings. If there is only a slight hemorrhage a few rather coarse bronchial rales may be heard. Should there have been a greater amount of bleeding, in like proportion there will be an increase of the number and size of the rales. It is this spitting of blood which frightens these patients and causes them to seek medical advice and treatment promptly. Skiographic study of the lungs in such cases, as a rule, throws no light upon the pathology that is responsible for their symptoms. If the patient is fortunate enough to expectorate all of the infected discharge from the erupted bronchial gland, and none of this material is aspirated and lodged in smaller air passages, no distribution of the infection would occur. If healing of the site of the eruption of the lymph node into the bronchus be prompt and complete, all of the symptoms will subside completely and the patient within a very

short time will assume the state of his former health.

Rather rare are the number of cases who have been this close to a massive tuberculous infection and fortunately escape, but the writer has observed five such, and he can put no other clinical interpretation upon them except that a bronchial lymph gland necrosing into a bronchus was the causative factor in the production of this clinical picture. These patients, who have remained clinically free from other tuberculous manifestations for from a few months to several years, afford further proof that it is possible to have this pathology occur and produce this symptomatology without the infection being spread to the parenchymatous tissue of the lungs. This could only occur in instances where the gland in its necrosis and eruption into the bronchus did not discharge any of its tubercle bacilli into a blood vessel, and where there was no aspiration of the infected discharge into adjacent lung structure, thus avoiding infection by the circulation and air passage routes.

The treatment of these cases follows closely that which is administered in the treatment of pulmonary tuberculosis. Absolute rest in bed is imperative. The use of any form of cough medicine is contra-indicated. It is of advantage to apply ice packs to the chest, especially if there is much hemorrhage. Inasmuch as it is a universal observation that the organism freely deposits calcium in bronchial lymph glands which are infected with tuberculosis, it would seem that if there be prompt and sufficient deposit of calcium in these infected glands that necrosis would not occur and the danger of dissemination of the infection would be avoided. It would therefore appear rational to administer some form of calcium in large and frequently repeated doses. In instances where the emergency is great this can be done by the intravenous method. As a rule, however, its use by oral administration is sufficient. It is possible to give neutral solutions of calcium by mouth in large doses without causing any disturbance to the patient's digestion.

Sweany, in his report upon "The Alkali Reserve in Tuberculosis", in a study of the blood plasma of 262 specimens from adults having uncomplicated tuberculosis, and on 126 specimens from plasma from children, concludes that his results may be considered negative as proving that tuberculosis is accompanied by an acidosis, yet he states there is an indication that the general average of the tuberculous have a slight tendency in that direction, and that the careful administration of alkalis, either in the form of food or drugs, will restore the normal alkali reserve.

One could not reach the depth of this subject without giving thought to the manner in which calcium is used by the organism in its effort to

heal tuberculous lesions by that peculiar phenomenon, the deposit of compounds of this base in infected areas. We must consider primarily the chemistry of the tubercle bacillus, the chemistry of the tissues it invades, and likewise the chemistry of the compounds of this base, and by the co-relation of these chemical entities we can better comprehend the process which nature is attempting to use in the arrestment of the disease. Such a study will at least give us a better understanding of this process than that which now prevails. Universally, such terms as "calcification," "liming up," and "walling off" are used. These crude terms refer only to the gross mechanical end result of the deposit of calcium in tuberculous areas, and give no thought to the purpose that the organism is attempting to accomplish. Therefore, it would appear that study of this phenomenon, of what nature attempts to do, should bring us closer to a definite treatment for tuberculosis.

If we would consider carefully what actually happens in the development of a primary tubercle with its myriad of tubercle bacilli, surrounded as they are with their fatty capsule, it would appear that they must be able to change the chemistry of the immediately adjacent tissue from the normal alkaline state to an acid state, thus producing what might be called a localized acidosis. As the disease progresses this battle of acids and alkalies goes on until, in the terminal stages, we find the tide running fast in the direction of the acid state. It is then allowable to act upon the hypothetical assumption that this bacillus with its marked fatty acid structure is capable of producing a localized acid state in tissues which it infects. The assumption is permissible that the organism does deposit calcium in these lesions, not for the purpose of walling off and calcifying these areas primarily, but it attempts to concentrate there an excessive amount of alkaline substance for the purpose of counteracting the effects of the acids of this bacillus upon the surrounding tissues. Therefore, if these deductions be logical, by supplying the system with an abundance of calcium, we would be aiding in the production of a chemical state which is inimical to the environment of the tubercle bacillus.

Quoting from an article entitled "The Use of Calcium in Pulmonary Tuberculosis" by the writer, published in the July issue, 1922, of the *American Review of Tuberculosis*, I stated that I have frequently observed that excellent results would follow the administration of calcium in many patients in which all other remedies had failed, but likewise had observed it to fail to be of benefit in many cases where it would be expected to do at least some good. These observations have forced the conclusion that there must be something lacking in the patient's economy that prevented the action of calcium in playing its role of chemical concentration.

Recent observations of Shipley, Park, Simmons and Parsons in the study of the relation of calcium to rickets, show that there is "ocular and conclusive evidence of the specific beneficial effect of cod-liver oil on rats suffering with experimental rachitis: that some substance in cod-liver oil has caused calcium to be deposited in the same fashion in which deposition occurs in spontaneous healing in man". Premister, Miller and Bonar observe that phosphorus and cod-liver oil in some way restore the power of normal ossification which in rickets is temporarily lost. "In the case of cod-liver oil," they state, "the result might be attributed to the presence of fat soluble (vitamin A.)." A study of the conclusion of these workers in the field of rickets affords a better understanding of the failure in many instances of the organisms to utilize calcium concentration, not only in tuberculous infection of the bronchial glands but may also account for the failure of the protective influence of calcium in combating the disease after it has gained a start in the parenchymatous structure of the lungs, due to the absence of this entity apparently found in cod-liver oil.

The further pursuit of this thought brings us to a consideration of the now nearly discontinued empirical use of cod-liver oil in the treatment of tuberculosis. Up to the last decade no other remedy was so universally used in the treatment of tuberculosis, and no one can doubt that the generation of physicians who preceded us did much good with this preparation in the treatment of this disease. In the new light in which we can now view the therapeutic value of cod-liver oil as related to rickets, may we not conclude that the empirical use of this product in the treatment of tuberculosis has been misunderstood; that its real value is not found in that it added to the patient's nutrition and afforded a means of maintaining body weight by its ingestion as a fat, but that in the preparation is to be found a substance which causes in tuberculosis, as it does in rickets, the fixation of calcium.

REFERENCES

1. Miller—*American Journal Roentgenology*, issue June, 1917.
2. Dunham—*American Journal Roentgenology*, issue June, 1917.
3. Sweany—*Journal American Medical Association*, issue May, 1922.
4. Beasley—*American Review of Tuberculosis*, issue July, 1922.
5. Shipley, Park, McCollum, Simmons and Parsons—*Journal Biological Chemistry*, issue January, 1921.
6. Premister, Miller and Bonar—*Journal American Medical Association*, March, 1921.

DISCUSSION

DR. S. E. EARP (Indianapolis): I can readily conceive that if there is a hemorrhagic condition and it is going to do damage, it must, as far as a tuberculous condition is concerned, be a carrier of tuberculous material. Otherwise it is perfectly harmless except that it may produce a pathological condition that is non-tuberculous. On the right side of the Doctor's chart I notice that there is a quantity of blood passing down into the bronchial tube. That is particularly favorable

for the passage into, or the bringing into contact with, the bronchial tube of a liquid preparation, which is the blood, and it passes farther down into the bronchial spaces. If we take for granted that it is infected we can see that it is possible that with all this infection passing through, an infection tuberculous in character is likely to be manifest. Then as it passes down into the infundibuli we get a condition which may be a bronchiectasis. It may be a consolidation, and if such does take place it is quite possible that that is the pathology in many of the cases of so-called tuberculous pneumonia. If it is not infected, and this hemorrhagic condition is due to injury, then it may fill up the infundibuli, and then we may have a consolidation and the first steps of a pneumonia. I wonder if that be true, if that is not the reason why, after there has been a hemorrhagic condition, when we place our stethoscope over that area within a few hours we do not hear any sounds that would indicate to us where that hemorrhage has come from. That is known to all and while I would not advance that theory rashly, I suggest it as a possibility.

Now, on the left side, I do not think the essayist meant that it was the blood that was coughed up, but that the debris was expectorated and that the expectoration contained a large amount of material, which was portions of the gland proper. So far as the blood is concerned, the blood is present because of coming from the tissue where there is a suspicion of trauma, and we get something which shows red in the material. Dr. Beasley evidently means that all of the contents were expectorated.

Now, then, that gland is ruptured, and if all the material passes out as an expectorated product it is easy to see that there has been no evidence of infection, be that tuberculous or not. The individual will have a destroyed bronchial gland, there will be a scar, and that same scar is seen at the autopsy and you say here is a patient with a healed tuberculosis.

Glands often calcify; we know that. They increase in size, a pneumolith is formed, and eventually they are so sharp that they burst through, there is a little trace of blood, and if that calculus does not produce asphyxiation it disappears forever by means of expectoration, and that patient recovers.

When it comes to the question of calcium, if we know what calcium will do, we know what we want done. The surgeon, if there is a low coagulating index, brings it up to normal by the use of calcium before he will operate. So far perhaps calcium is worth something. It increases fibrin ferment. It stimulates heart function. It reduces inflammation. Calcium increases phagocytosis. It increases the tissue resistance to infectious diseases. These are the things that it will do, and if these things are what you

want done, then calcium must be a pretty good therapeutic agent.

DR. C. R. BIRD (Greensburg): There is no question but that calcium has a definitely influential and beneficial effect upon the progress of a number of diseases. The essayist stated that it was not likely that any physical findings could be found at a time when simply the lymph node was involved. I believe, differing with him, that very often—in fact most frequently—we will find physical signs, and the man who is careful with his stethoscope in making a topical examination of the chest of every patient will often find things he did not suspect. I believe that in the pathology of lymph nodes you will find an altered breath sound very easily. The altered breath sound to the trained ear is not so difficult to discover, and that constitutes the second stage in tuberculosis, as I see it.

The essayist has attempted to bring to us something that has to be worked out partly by clinical study and partly by laboratory confirmation. He has attempted to show us that there is a battle going on in the area where the tubercle is formed, and that in conjunction with that there comes a chemical battle to neutralize that localized chemical acidosis. I think this is a perfectly logical conclusion and a beautiful presentation of a line of constructive thought which this man has been carrying on for a series of years. He has brought out phases of the clinical and the pathological sides of tuberculosis, and I think we cannot have this brought too often to our notice.

DR. MARCUS W. LYON (South Bend): The subject is entirely foreign to my work in medicine, but I wish to express my skepticism in regard to calcium when there is already so much calcium in the food we take and when, particularly in South Bend, there is so much calcium in the ordinary drinking water. I should think there would be enough to be utilized by the human organism for any need. Before one can conclude that calcium therapy produces an increased calcium content in the blood, it seems to me it would be advisable to have some exact determinations made before and after treatment. I am a little skeptical about calcium being the sole cause of the deposits seen; there are probably other factors involved. I should like to know whether calcium determinations have been made before and after the administration of calcium. Several different satisfactory methods have been devised for its determination in blood.

DR. EDWARD M. AMOS (Indianapolis): I believe the essayist had in view not the large hemorrhage that we have in advanced tuberculosis, but the small hemorrhages which we so often find in tuberculous patients. We have many cases in which there have been no symptoms preceding the hemorrhage. Patients often come and tell us that they have spit up a tablespoonful or a

teaspoonful of blood and they are very anxious about themselves. We examine for temperature, and sometimes find it, but sometimes do not. These cases are very suspicious of having an early tuberculosis. We have a case now that probably would come under this head, a patient whose father died about six years ago, having had tuberculosis about eighteen or twenty years. He had two daughters, one fifteen and one seventeen. The girl of seventeen had tuberculosis with numerous findings in both lungs. She did not have any hemorrhages. I put her in bed and in some months' time she returned to normal, regained her former weight and seems perfectly well, but still has some physical findings. In April the second daughter developed fever and with it a most excruciating cough. Dr. Emerson saw the patient with me and found some enlargement of the spleen. The conclusion was that of a tuberculosis of the mediastinal glands.

DR. THOMAS J. BEASLEY (closing): I wish to answer Dr. Lyon's question by emphasizing again the point I made in the paper—that there are a great many instances in which there is a failure on the part of the organism to fix calcium, to obtain calcium concentration. If this were not true we would not be here, because tuberculosis would have annihilated the race. We are well aware of the fact, from skiographic examinations, that practically all of us have had tuberculosis. Those who are prone to the disease have extensive destruction. The point is that in some instances there is failure of calcium concentration.

When we look into the field of rickets we find what has been proven there, namely, that calcium is given to many patients in which no concentration of the calcium nor ossification of the bones occur. However, when cod-liver oil is added, this action invariably takes place. So today cod-liver oil and calcium are specifics in the treatment of rickets. If we bring this over into the field of tuberculosis we can understand why it was that the physicians who preceded us so constantly gave cod-liver oil. We can see that the good results were not in the nourishment obtained from the oil, but came from the vitamins it contained and which caused the concentration of calcium.

SYPHILIS OF THE LUNGS*

FRANK E. SAYERS, M.D.

TERRE HAUTE

Syphilis of the lungs may often be suspected, but seldom is proved. However, modern investigators have broadened our understanding so that the diagnosis of the disease during life has been made a somewhat more simple task. In the presence of other manifestations of syphilis, pulmonary pathology otherwise not explained tempts

the clinician to make a reserved diagnosis of pulmonary syphilis.

One pathologist states that "the clinical diagnoses of syphilis of the lungs are made much more frequently than they are given a pathological confirmation at autopsy". But this statement undoubtedly is true concerning any disease.

The literature upon the subject agrees that the disease is one of rarity. Fowler¹ was able to find but twelve examples of the disease, two of which were doubtful, in the museums of the London hospitals. Among 2,800 autopsies at the Johns Hopkins Hospital there were twelve cases with syphilitic disease of the lungs, eight of which were due to the congenital form. In a study of 4,880 autopsy protocols, 314 showed lesions due to syphilis; Symmers² found the lungs involved in twelve cases. In fact there are numerous reports by the earlier investigators which show that the condition was recognized in a very small percentage of the cases investigated. Carrera³ in his work at the University of Michigan, the results of which were published in 1920, found that out of his series of 152 cases of syphilis which were autopsied, twelve cases showed histologic changes in the lung which he considered as undoubted syphilitic lesions, or roughly eight per cent. He states: "It is probable that many other lungs were syphilitic, but the specific active changes were not found; and it is only upon these we can make a positive diagnosis. * * * It seems most probable that the lungs were involved in the mild general infection of syphilis to about the same degree that the other organs and tissues are." Watkins⁴, a roentgenologist, reporting 5,000 x-ray examinations of the chest, found 146 cases which were diagnosed as uncomplicated lung syphilis, and 68 cases of this disease in combination with pulmonary tuberculosis, and believes the latter figure is much too low.

A number of investigators maintain that of all the organs of the body, the lungs are the least affected with syphilis. Contrary to this, Roselle⁵ in 1918 said that "Syphilis of the lung is at least as frequent as syphilis of the liver"; and Flockerman states that "there is no good reason why the lungs should not be attacked by lues as frequently as any part of the body".

Commenting upon the wide variation of the views of the various investigators, Carrera³ states that "it is evident that the incidence of pulmonary syphilis depends upon the personal criteria of the investigator, the year the investigations were made, etc." Osler remarks that "the pathological diagnosis depends upon the conception of the individual as to what constitutes a syphilitic lesion. Norris and Landis² say that "it is quite likely pulmonary syphilis will become less of a rarity now that we know the exciting cause," and it is reasonable to believe that with the more

*Presented before the Section on Medicine of the Indiana State Medical Association at the Terre Haute Session, September, 1923.

advanced methods of pathological, roentgenological and clinical technique the presence of the disease will be recognized where formerly it was unsuspected.

Fowler¹ lays down the following postulate which in his opinion must be fulfilled before a positive diagnosis of pulmonary syphilis can be made:

"(1) The evidence of syphilitic infection must be undoubted.

(2) Repeated examinations of the sputum must have been made and tubercle bacilli have been invariably absent, and the absence of tubercles in the lungs as the cause of the lesions must be proved by postmortem examination.

(3) Syphilitic lesions about the nature of which there can be no doubt must be found in other organs.

(4) The cases must be complete, that is, the symptoms observed during life must be considered in connection with the lesions discovered on postmortem examination."

Evidently this writer does not believe a definite diagnosis can be made on the living subject. However, he believes that "every case of chronic lung trouble should have a Wassermann performed, and that if it be found positive, or there be any evidence whatever of lues, from either history or physical examination, pulmonary syphilis should be ruled out if possible." He further states that "it is difficult to cure cases of pulmonary tuberculosis, but relatively easy to improve instances of pulmonary syphilis. If there is any evidence whatever of syphilis with the absence of the tubercle bacillus in the sputum, the patient should be given anti-luetic treatment."

In the study of the clinical manifestations of pulmonary syphilis, one again finds a wide variation of opinion among the writers upon the subject. Osler⁶ aptly remarks that "all are agreed that the lungs are rarely attacked in lues, few are agreed as to the distinctive features of the lesion, and still fewer as to the clinical symptoms".

There are two types of the disease that must be considered, first, the congenital, and second, the acquired type.

The congenital type as found in the new born syphilitic children is one in which there is a general agreement as to the findings. Infrequently gummata are found. The typical lesion is that known as white pneumonia. The lung is much increased in size and may be marked by the ribs. It presents on section a dry, smooth surface, grayish or yellowish white in color, resembling the cut surface of the pancreas. The areas of consolidation may occur in scattered patches throughout both lungs or they may involve an entire lobe.

The chief changes are cellular infiltration involving the alveolar walls and proliferation of

the interlobular connective tissue, this giving rise to an interstitial pneumonia. Stained sections of the lung show an enormous number of the spirochaeta pallida. However, this type is largely of pathological rather than of clinical interest.

The acquired type is one upon which clinicians and pathologists fail to agree on more than a very few instances. This much may be gleaned, however, that the symptoms occurring are by no means distinctive or constant. Osler⁶ disposes of the symptoms of pulmonary syphilis as being "very uncertain, practically those of pulmonary tuberculosis, but with the physical signs at the root of the lung and toward the base. The clinical features are often those of chronic bronchiectasis or fibroid phthisis. In the case with tracheal or bronchial stenosis dyspnea is a special feature. Hemoptosis may occur. There may be no fever, but when softening has occurred or when there are large bronchiectatic cavities, the temperature may be of the hectic type." Sajous⁶ says "the symptoms may be either those of a simple bronchial catarrh or are suggestive of pulmonary tuberculosis. Such manifestations as fever, expectoration, copious sweats and loss of weight being noted." Norris and Landis² give the following symptoms as usually being present: cough, which may be dry and unproductive or accompanied by a moderate amount of expectoration which is yellowish or greenish in color. Hemoptysis is not common, although in one case observed there were frequent attacks of blood spitting. Dyspnea is often present and may be very marked in those cases in which there are extensive fibroid changes, in some instances it is asthmatic in character. In cases where fibroid induration has existed for some time the clinical picture is that of cirrhosis of the lung with or without dilatation of the bronchi.

Hazen⁷ is more concrete in his grouping of the disease based upon the clinical manifestations, dividing it into four groups: (1) The latent, which he believes to be more common than is usually supposed. In this type the patients may be well nourished and show no clinical signs of pulmonary disease, or they may show signs of pulmonary disease which may be diagnosed as pulmonary tuberculosis in an early form. Usually there is some loss in weight, some cough with expectoration, occasionally some night sweats and some fever. (2) The second type is composed of cases where there is definite local cavity formation, due to the ulceration of a gumma into the bronchi, which cases resemble tuberculosis very closely. (3) The third type or group he distinguishes as syphilitic phthisis, which cannot be distinguished clinically from tuberculosis. (4) The fourth type is the "fibroid type, which is clinically indistinguishable from fibrosis due to any cause.

He cites two examples of his first or latent type: the first, a woman that was suspected of

tuberculosis in an early stage because of supposed early lesions at both apices. Examination revealed a gumma on her leg and she gave a history of having had a chancre on the lip four years previously. Sputum examinations were repeatedly negative, there was no pulse or temperature disturbance, the tuberculin reaction was negative, and on anti-luetic treatment the lung signs cleared up within a month. The second case was of a woman who had been diagnosed as tubercular because she had had about twenty-five pulmonary hemorrhages. She had a palmar syphilide, was given anti-luetic treatment and suffered no more pulmonary trouble.

Norris and Landis² cite three cases which would seem to fall within this first classification of Hazen's. The first, a female, aged 28, history of repeated attacks of hemoptysis for five years, her first pregnancy resulting in a miscarriage. Cough for past year, considerable greenish expectoration, night sweats and loss of 30 pounds in two years, slight elevation of temperature, 99 to 100 degrees. Was sent to a sanitarium, gained sixteen pounds but pulmonary symptoms persisted. Sputum had been repeatedly negative for tubercle bacilli, Wassermann was taken and found strongly positive; was given anti-luetic treatment after which her pulmonary condition gradually improved and eventually became apparently well in every way; later became pregnant and was normally confined.

The second case, a female aged thirty-four, married eleven years, three miscarriages, no living children. Had no history of initial or secondary lesions. Had a cough, greenish colored expectoration, night sweats and some loss of weight, infrequent blood tinged sputum, slight rise in temperature, sputum repeatedly negative for tubercle bacilli. The Wassermann test was strongly positive. She was given anti-luetic treatment and the cough entirely ceased.

The third case, a male of thirty who had lost 25 pounds; had a cough and expectoration with a slight fever. Was found to have syphilis and was given anti-luetic treatment after which his pulmonary signs completely disappeared.

The physical signs of pulmonary syphilis resemble in great part those of pulmonary tuberculosis. When the apex of the lung is affected the findings do not differ from those of tuberculosis in its incipient stage, and in the fibroid type the signs seem identical with those found in fibroid phthisis. However, there are differences in the physical signs and other findings in the two conditions that are helpful in differentiating them which have been recognized by Fowler¹ and have been described by him with great clearness, and are as follows:

(1) Tubercle usually affects the apex of the lung and subsequently the apex of the lower lobe and tends to progress in a certain route. The primary lesion of syphilis is often about the root

and central part of the lung. The disease follows no definite line of march and gummata may be found in any position.

(2) Both tuberculosis and gumma may undergo either necrosis and caseation or fibrous transformation, but with caseous tubercle the tendency toward softening and cavity formation is the rule, whereas a caseous gumma very rarely breaks down.

(3) The progressive destruction of the lung by a process of disintegration leading to a gradual increase in the size of the cavity, a change so commonly observed in the tuberculous disease, is rarely if ever observed in syphilis, except as a secondary result of stenosis of one of the main bronchi.

(4) In nearly all cases of advanced destruction of the lung occurring in the subjects of syphilis, stenosis of either the trachea or one of the main bronchi is present, whereas this lesion is very rare indeed in tuberculosis.

(5) The cavities found in cases of pulmonary syphilis are usually bronchiectatic, but not invariably so; whereas in tuberculosis they are commonly due to the progressive destruction of the lung, but may be bronchiectatic.

(6) The tendency to the formation of pulmonary aneurism, which is so marked a feature in tuberculosis, is rarely observed in pulmonary syphilis.

(7) Pulmonary lesions in tuberculosis are very common whereas in syphilis they are extremely rare.

The diagnosis of the condition when made is usually by the process of exclusion, although if the physical signs are elicited about the hilus or at the base of the lung the diagnosis of tuberculosis should be questioned and the possibility of lues be given due consideration. A valuable aid in the confirmation of such a diagnosis lies in the therapeutic test. Tuberculosis will show no improvement following anti-luetic treatment, while if the condition be a syphilitic one it will markedly improve, barring, of course, the symptoms that are due to permanent fibroid changes in the lung.

If in the presence of pulmonary pathology the often repeated sputum tests for tubercle bacilli are negative, other syphilitic stigmata are present, such as a bone lesion, keratitis, indurated testicle, or if the Wassermann test be positive, the diagnosis of syphilis of the lung should be seriously considered, but it must be remembered that syphilitic and tubercular infection may be associated in one case and that a positive Wassermann does not prove that the existing lung pathology is luetic.

Carrera³ noted a terminal bronchopneumonia or croupous pneumonia occurring in a very high percentage of his series of cases, and Barbosa⁴

makes the statement that "in any case of bronchopneumonia there should be a search for syphilitic infection".

According to the various authors there are two types of lesions found in this disease—the gumma and fibrosis. Osler describes the gummatous lesion as showing minute patches of caseous necrosis in the neighborhood of a vessel showing arteritis. Later there is a capsule formed, and at the same time the pneumonic process develops. Microscopic examination shows the absence of fibrous connective tissue at the periphery, with the infiltration of round cells and an active proliferation. Within the alveoli cubical epithelium is formed, with but few giant cells. When giant cells are found, they are different than those found in tuberculosis. The later microscopical descriptions as a rule mention three zones of central degeneration; a caseation, an intermediate one of neo-formation and an outer one of transition or infiltration. It is a striking fact that in the majority of the cases described microscopically, the gumma is found in combination with an interstitial fibrosis or sclerosis; there is an accompanying arteritis, a peripheral infiltration of round cells and plasma cells, with the presence of yellow elastic fibres in the central zone of caseation.

With regard to the location of the gumma, the right lung seems to be the more frequently affected. There is some discussion as to whether they are ever found in the apices, but if at all it is very infrequently. Some authors state that they are chiefly peri-bronchial; Fowler, however, describes them as being in the substance of the lung.

The fibrosis of the lung is really a chronic interstitial pneumonia, or a sclerosis; the characteristic lesions which have been described as typical are as follows: A diffuse infiltration of the middle portion of the lung, red-yellow in color of varying shades, smooth, uniform, airless, compact or nodular, with sclerosis of the bronchi which may be dilated. The sclerotic tissue radiates from the hilum or from the pleura, and can extend to the farthest zones of the lungs. It can form septa of the third and fourth order, giving to the lungs a lobulated aspect. The sclerosis is produced by connective tissue which compresses the alveoli. Around the bronchi and the vessels the thickening is constantly found, and in some places the alveolar walls are thickened, the elastic tissue is very well preserved and new muscle fibers may be formed along the vessels in the middle part of the bronchi. Roselle⁵ asserts that the characteristic changes in chronic interstitial pneumonia are a peri-bronchitis, periangitis, thickening of the alveolar walls, increase of pigmentation and new formation of a network of connective tissue.

Many writers have noticed the frequency of

excessive anthracosis associated with lung syphilis.

This field is truly one that has received a great amount of attention, investigators being stimulated by the elusiveness of the desired goal of understanding, and hampered by the apparently low incidence of the condition as we know it today. But as the knowledge of the subject of lues as a whole advances, the conception of the subject of pulmonary syphilis will undoubtedly keep astride, and with this better understanding the medical profession will be better able to assist the unfortunates afflicted with this malady. But today the subject of syphilis of the lungs is a source of much dispute among both clinicians and pathologists, and it remains a field calling for intense and intelligent investigation.

BIBLIOGRAPHY

- (1) Fowler, J. K, Diseases of the Lung, 1918.
- (2) Norris and Landis, Disease of the Chest, Saunders, 1920.
- (3) Carrera, Jose Louis, A pathologic study on the lungs in 152 autopsy cases of syphilis. *Amer. Journal of Syphilis*, Jan. 1920.
- (4) Watkins, X-Ray characteristics of lung syphilis, *Journal Radiology*, May, 1920.
- (5) Quote by Carrera.
- (6) Osler, Osler-McCrea Modern Med., Vol. 2.
- (7) Sajous, Analyt. Cyclop. of Practical Medicine, Vol. 6.
- (8) Hazen, Syphilis, 1919. Mosby.
- (9) Barbosa, J., Sobre um Caso de Phtisica Syphilitica: *Brazil-Medico*: 1921: II, 377.

DISCUSSION

DR. F. M. GASTINEAU (Indianapolis): We know that there are two distinct types of syphilis of the lungs, one found in the fetus and one in the adult. As a result of our autopsy we reach the conclusion that syphilis of the fetus shows large white lungs; in the adult there is less evidence of the infection. Most of the changes of the syphilitic lung of the adult are found in the lower lobes. We also find ulcerations of the trachea and involvement of the lymph nodes. One of the most important things to remember is that syphilis is a disease of any tissue and may manifest itself in the lungs as well as any other part of the body.

We know there must be involvement of the lungs in secondary syphilis. Frequently patients of this kind have head cold, cough, and evidence of bronchial involvement. Syphilis manifests itself particularly at points of irritation. The lungs are not exposed to as much irritation as many other parts of the body, and I think that accounts in a great measure for the fact that we do not find more syphilis of the lungs.

DR. A. M. COLE (Indianapolis): I can recall no subject that offers more occasion for differences of opinion than syphilis of the chest. The German authorities at one time claimed that it did not exist. The French believe it quite common. In my experience I have examined a considerable number of chest plates and I do not recall a single plate where I even suspected syphilis. If we do have syphilis of the lung,

the Roentgen findings would certainly show up something that would be characteristic of this disease. It has not done so to my knowledge. Several years ago the late Dr. Dodd presented a paper before our local society with a report on seven syphilitic lungs. I went over his plates carefully but could find no evidence of syphilis, judging from the plates alone. One case he presented was that of a dental student who had a large shadow in the mediastinum. This was taken to be syphilis because of his history. Later I understood that this tumor disappeared under the administration of iodid. A short time ago I had occasion to examine this same patient for suspected stomach ulcer and found the mediastinal shadow still present. I do not know what it was but I do not believe it was syphilis.

DR. CHAS. F. VOYLES (Indianapolis): A few years ago a leading pathologist of this state, with much experience in autopsies, made the statement that he had never seen syphilis of the lung at autopsy. Personally, I think syphilis of the lung may or may not show in the x-ray film different from tuberculosis. The diagnosis is very difficult in cases presenting some evidence of tuberculosis, a negative Wassermann and no history of syphilis. Tuberculosis can be proven or ruled out, but when we give antiluetic treatment as a therapeutic test we often get some improvement, although not enough to be convincing. If the case is non-tuberculous and the diagnosis is not confused by focal infection or some other co-existing disease, the improvement is likely to be sufficiently

prompt and pronounced to justify a diagnosis of syphilis.

DR. A. S. GIORDANO (South Bend): Some time ago Dr. Carman and I translated and reviewed a case of that kind with a very indefinite clinical picture. The Wassermann reaction was negative and there were no clinical evidences of syphilis. Anti-syphilitic treatment was instituted with weekly Roentgenograms. Three months later the shadow was entirely gone. This illustrates how important such a clinical test is in dubious cases.

DR. F. E. SAYERS (closing): With regard to x-ray characteristics, Watson laid great stress upon the fact that the fibrous tissue came more frequently from the pleura itself, growing inward. Sometimes it came from the hilum, but he showed several pictures with rather dense shadows that were from the pleura itself.

I had a case of chronic catarrh within the past year and that patient was found to have syphilis. The patient came because of a hacking cough, the syphilis was an incidental finding. He did not stand his mercury very well and we took out the tonsils, which were infected and his cough has ceased. Whether it was from removing the focus of infection or from clearing up the syphilis of the lungs I do not know.

The point I wish to make is that we do not look for this condition often enough. We should not depend upon the Wassermann reaction too much, but look for the other signs, the bone lesions, keratitis, etc. If we think of syphilis every time we suspect tuberculosis we certainly will find these cases more frequently.

THE NATURE OF INSULIN

The artificial synthesis of products of great physiologic potency is always a fascinating goal of biochemistry. This is particularly true in the case of hormones, such as those produced in the endocrine structures, which are present in extremely small concentration and therefore require large quantities of tissue material for their separation in any considerable amount. The suprarenal, thyroid and pituitary, for example, are being used commercially on a large scale for the manufacture of the desired pharmacologic agents that they contain. The latest addition to the list of useful depots of hormones is the pancreas, the source of the already highly valued insulin. The demand is large, and the isolation of a potent product is a laborious and costly undertaking. Before the prospect of a synthesis of the active substance can be entertained, its chemical structure must be ascertained. Consequently, considerable energy has already been devoted to this

problem. The earlier indications that insulin may be protein in nature have recently been supported by the investigations of Dudley at the National Institute for Medical Research in England. He points out that its ready absorption, its failure to pass through an ultrafilter, and its rapid digestion by trypsin, particularly by pepsin, all indicate that it is most probably a substance having a very complex structure and protein-like in its nature. Consequently, Dudley points out that the hope of its isolation as a chemically pure substance becomes slender, and of its synthesis very remote, by methods at present at our disposal. Furthermore, we are reminded that the administration of insulin by mouth is not feasible on account of its rapid destruction by the digestive enzymes, and the relatively large size of its molecule makes it unlikely that absorption from mucous surfaces, such as those of the nasal passages, a method that has recently proved useful in controlling diabetes insipidus with pituitary extract, will be practically useful in the case of insulin.—*Jour. A. M. A.*, Sept. 29, 1923.

THE JOURNAL of the

Indiana State Medical Association

Devoted to the Interests of the Medical Profession of Indiana

ALBERT E. BULSON, JR., B.S., M.D., F.A.C.S.
Editor and Manager

Office of Publication, 406 W. Berry St., Fort Wayne, Ind.

MARCH, 1924

EDITORIALS

THE TREATMENT OF SEPTICEMIA AND LOCAL INFECTIONS

Under this title the *Journal of the A. M. A.* of March 1, 1924, publishes an article by Hugh H. Young and Justina H. Hill concerning intravenous injections of mercurochrome 220 soluble, and of gentian violet. In a series of cases reported, all serious and some almost moribund, the results were nothing short of miraculous. Were it not for the fact that the authors are prominent teachers and clinicians of wide experience and noted for the trustworthiness of their findings, one would be apt to judge the contribution to which we refer as being visionary and based upon insufficient data such as employed by over-enthusiasts. However, it is well to take into consideration that other well known and experienced clinicians have been reporting experiences showing the wonderful effect of certain of the dyes as a germicide in inhibiting or destroying infection, so that we are more or less prepared to give favorable consideration to the laudation given mercurochrome and gentian violet in this latest article.

Briefly stated, these clinicians have found that mercurochrome in one per cent solution may be used effectively as a local treatment of wounds, and also by intravenous administration in the treatment of blood stream infections.

The first case reported was one of general septicemia due to the colon bacillus. The patient was almost moribund, and the condition cleared up by intravenous injection of 34 c.c. of 1 per cent mercurochrome. Within six hours after the injection the patient's condition was marvelously transformed. The temperature had dropped to 97 degrees, a culture taken from the blood was sterile, and one week later the patient was discharged from the hospital. As the authors say, "the rapidity of restoration from imminent death to normal health was almost unbelievable." The second case was one of staphylococcus septicemia and extensive subcutaneous abscesses following severe injury. This patient received on separate days three intravenous injections of 10 c.c. of a 1 per cent solution of mercurochrome, with the resulting sterilization of the blood and uninterrupted recovery. The third case was a retroperitoneal ab-

scuss from colon bacillus infection. One intravenous injection of 27 c.c. of 1 per cent solution of mercurochrome caused a rapid disappearance of the abscess. The fourth case was one of pyonephrosis, and being too ill for an operation on the kidney he was given 28 c.c. of 1 per cent solution of gentian violet, with eventual cure of the case without further treatment. To show the sterilizing effect of intravenous injections of mercurochrome on local processes the authors recite cases of bilateral chronic pyelitis, due to bacillus lactis-aerogenes, chronic cystitis due to colon bacillus and staphylococcus albus, and pyelitis due to colon bacillus, all severe cases and relieved promptly by the intravenous mercurochrome treatment.

The authors also report cases showing the value of gentian violet as an intravenous germicide. In the case of an infant with staphylococcus septicemia and multiple abscess, three injections of a 0.25 per cent aqueous solution of gentian violet were given at twenty-four hour intervals in doses of 5 mg. per kilogram of body weight. After the third injection the patient's appearance had improved, fever was reduced, and the white blood count had decreased. The child, whose condition was desperate at the time of the injection of gentian violet, began to improve gradually and was discharged from the hospital two months later entirely well. Another case of staphylococcus septicemia with multiple osteomyelitis, in which the patient was almost moribund, a prompt cure was effected by the intravenous injection of gentian violet, 5 mg. per kilogram of body weight. A case of staphylococcus septicemia in a patient suffering with diabetes mellitus went on to a rapid recovery following intravenous injections of gentian violet, and in another case of chronic cystitis, posterior urethritis and prostatitis the staphylococcus infection was removed by gentian violet intravenously.

In summarizing and commenting on these cases the authors say that in the two cases of septicemia the results were almost miraculous, the patients being verily snatched from the jaws of death. In the ascending retroperitoneal infection the disappearance of the inflammatory mass was just as startling, while in the cases of pyonephritis the patients' lives undoubtedly were saved.

These cases are sufficiently varied to show a wide field of usefulness for mercurochrome 220 soluble as an intravenous germicide, but just what the limitations of its use may be will have to be determined by a much more extensive series of trials. The authors believe that the experience, coupled with the experience of their associates who have been using a similar treatment, show that mercurochrome may be efficacious in streptococcus septicemias as well as those due to the staphylococcus and colon bacillus.

The five cases treated by gentian violet comprise just as desperate cases as some of those treated by mercurochrome and gave just as brilliant results. In all of those cases the infecting agent was a staphylococcus, and the authors believe that gentian violet has had an apparently selective action against gram positive staphylococcus. They admit, however, that their experience is too small to lay down positive dicta as to the selective action of these drugs for the various pathogenic bacteria of local and general infections. In the case of gentian violet the intravenous injection of 5 mg. per kilogram is immediately following by a most alarming cyanosis which is simply due to the dye in the blood which causes no harm and passes off in a few hours. Otherwise practically no reaction results, and the authors have administered 8 mg. per kilogram of body weight in one-half of 1 per cent solution without harm. The pulse may get quite slow (60) and the blood pressure drops. In very feeble patients cardiac stimulants should be administered. In very weak patients the injection may best be given in two or three treatments (intravenous) one hour apart in order to give large doses.

In connection with the marvelous results secured it is well to quote and emphasize the concluding statement of the authors' report:

"In these cases we have the first demonstration that gentian violet may be used intravenously to combat general septicemia or local infections, and with remarkable success in the case of gram-positive staphylococci. Coupled with the equally amazing results obtained by mercurochrome, these cases represent a splendid therapeutic achievement, and one is tempted to soar into realms of fancy and see a great variety of infectious processes treated and cured intravenously; but one must be restrained and cautious. Only by most careful study and painstaking selection and management of the cases can serious blunders be avoided, and it would not be safe as yet to risk not operating on certain fulminating infections that can now be cured by prompt surgery. That certain localized infections may now be safely subjected to the experimental use of intravenous therapy is shown by some of these cases, and there can be no doubt that when blood cultures show a generalized septicemia, mercurochrome and gentian violet can now be offered with the hope of preventing an otherwise surely fatal ending."

EYE SIGHT CONSERVATION AND FREQUENT EYE EXAMINATIONS

In our efforts to conserve the health of the people we are urging periodic physical examinations by competent medical men, and just at the present time, to popularize this procedure, all persons are reminded that a good time to start these periodic physical examinations is on every birthday. Many people are following the suggestion, and it is redounding to the good of the people through the discovery of diseases in their incipency, with proper advice and treatment for

the patient in order to secure the best results, to say nothing of the healthful advice concerning hygiene, diet and habits of perfectly healthy individuals who may need the sobering influence of suggestions from competent medical men in order to influence them in better living in order to prolong life and happiness.

However, in this practice of recommending all persons to have periodic health examinations, preferably once a year, we note that some even very good internists are giving the very erroneous impression to people who have errors of refraction requiring the use of glasses, that the refraction does not change materially, except during the development of the presbyopic stage, and that when the patient reaches fifty to fifty-five years of age he can use the same glasses for from four to six years. We really are much surprised to note that any medical man will give such erroneous advice, for, as a matter of conserving vision to say nothing of the comfort of the individual, it is just as necessary and as advisable to have early examinations of the eyes by a competent ophthalmologist as it is to have the general examination, and while it is quite true that there are marked changes in the refraction, with the necessity of frequent change of glasses during the development of the presbyopic stage, it is equally true that there may be changes in the refraction at *any* age and the individual who is to conserve his comfort and the highest acuity of vision will of necessity give appropriate attention to these changes. In the presbyope the frequent periodic examination is indicated, not alone with a view to prescribing appropriate glasses but also with a view of detecting, by dark room examinations and otherwise, the pathologic changes which are so common in persons past middle age. In fact, there has been observed by numerous clinicians that not infrequently the first suspicion of cardiovascular or nephritic changes are discovered by the competent ophthalmologist through the medium of his ophthalmoscopic examination. The beginning sclerosis of the lens and eventually the faint cortical cloudiness which eventually leads to cataract, should be recognized early and receive trustworthy attention at the hands of the ophthalmologist in the way of appropriate advice to the patient as to the amount and character of work he can do, and the kind of glasses to be worn. Therefore, in this scheme of conservation, which is aided by the justifiable frequent periodic physical examination, we do not overlook the necessity of advising persons concerning the advisability of also having the eyes thoroughly examined at least once a year, and certainly not less than once in two years, by a competent ophthalmologist who not only is capable of determining refractive

errors and correcting them properly but qualified to pass an intelligent and trustworthy opinion concerning possible pathologic conditions.

BLACKMAILING MALPRACTICE SUITS

In the East, notably in New Jersey, physicians have been annoyed by malpractice suits instituted by individuals, with the assistance of those members of the bar who place pecuniary advantages above ethical considerations, with the idea that the physicians to avoid the publicity of such an action would settle out of court. These suits are known as "strike" suits. This method too frequently has been simply a disguised form of blackmail, to check which the Medical Society of New Jersey organized a defense council who, after hearing the physician's side of the case, if the physician is really guiltless, orders the case defended. In the past two years out of suits aggregating four hundred thousand dollars not a single dollar has been collected by law. In every case that has been defended by the State Society the verdict has been in favor of the physician.

On the face of this record the medical society of New Jersey is asking the press of the state to cooperate with it to help in stamping out the unfair practice of "strike" suits. The medical profession requests the press to refuse to publish the account of any suit until its actual trial in the courts. Whatever verdict is rendered by court or jury the facts should be published, but "news" stories of suits which are simply "strikes" are detrimental to the morals of the community as well as the physicians attacked, as those who institute "strike" suits use news publicity to aid their cause, although at the time they may know that the physician is absolutely innocent of wrong. They seek a financial settlement without carrying the case to trial. Without the publicity from the newspapers there would be very few "strike" suits.

In this connection it would be well to remind the members of the Indiana State Medical Association that our own defense feature has been

eminently successful, and every year since the feature was established quite a large number of doctors have been defended successfully in malpractice suits. We are safe in saying that some of the suits have been brought against members where there has not been the remotest chance of obtaining a verdict, and usually in such cases the newspaper publicity has been a "strike" feature, thus indicating the tendency on the part of some lawyers to force settlement without trial in order to avoid further publicity. Furthermore, that this plan of attack is not uncommon, is evidenced by the fact that not a few of the members of our Association have really settled malpractice suits

out of court in order to avoid publicity when there was no likelihood of ever having an adverse verdict in case the suit came to trial. As the welfare committee of the Medical Society of New Jersey well says, "This is simply a disguised form of blackmail, and there ought to be some method of checking it." This is one of the questions that can be taken up by our newly created publicity department in the hope that the newspapers of Indiana may adopt a policy of publishing nothing about a damage suit against a physician until the suit is terminated in court.

Physicians of Indiana, Please Note!

(See December, 1923, issue of this Journal, page 397: First Call. January, 1924, page 24: Second Call. February, 1924, page 54.)

About the time you are reading this, the ten members of your state committee on legislation will be meeting to carry out your suggestions and wishes.

Frank W. Cregor, M.D.

725 Hume-Mansur Bldg., Indianapolis, Ind.

Chairman Committee on Public
Policy and Legislation

AWARD FOR COMMUNITY SERVICE

Recently the editor of THE JOURNAL attended a banquet given for the purpose of honoring certain individuals who have rendered community service during the year 1923 that seemingly deserved public recognition. An especial award in the shape of a bronze plaque suitably engraved was presented to the one who seemed above all others to have rendered the most helpful service and been most unselfish in giving his time and talent to community good. Some fifteen or twenty names of persons had been submitted for consideration by the committee on award. Each one of these persons had rendered gratuitous service to the community, some doing considerable work, others doing less, all fairly well advertised to the public,

but not one of them had rendered as much nor as valuable community service as has been rendered in an inconspicuous way by any one of a dozen physicians that we could name, and yet it probably never occurred to any one in a city of one hundred thousand inhabitants to call attention to the work of a medical man as standing out in bold relief as unselfish service to the community. It may be all right to single out one individual who has aided in increasing the material benefits enjoyed by a community, but why forget the busy doctor who almost every day of the year devotes of his time, talents, sympathy and even his money to help the deserving poor and some others who are not deserving of his bounty. Day or night, in fair weather or foul, and unselfishly, with only the idea of relieving suffering and rendering humanitarian service, he goes into the homes of the poor, knowing when he goes that he will receive no compensation for the services, and occasionally the conditions which he finds appeals to his generous nature sufficiently to cause him to provide food and clothing, which he pays for out of his own pocket. He does all this not only through a sense of duty as a member of his profession but because he has in his heart the idea of service to humanity, and he neither asks nor expects reward for a service that comes from the heart. He does not ask nor does he desire that he be singled out for meritorious services and given a bronze plaque in commemoration of it, but it does seem a little inconsistent to think that the service of others which does not compare with his in time, quality or evidence of the possession of the milk of human kindness, should receive public recognition and laudation when *his* work does not come in for even favorable mention. It causes us to smile cynically when we think of it, and yet we realize that perhaps after all it is better that the doctor should go about his errands of mercy without the hope of any further reward than that which comes from a knowledge that his humanitarian work has been appreciated by the recipients, and the greater reward that comes in self-satisfaction from exemplifying the teaching of the Good Book, "Verily I say unto you, inasmuch as ye have done it unto one of the least of these My brethren, ye have done it unto Me."

PROFESSIONAL FEES

Everything smells of oil in Washington. In developing the scandals we learn that high officials, candidates for presidential honors, and speculators juggled with large sums. It is reported that one man, formerly a high official but not possessing legal qualifications worth mentioning, was on the payroll of one oil man at a quarter of a million dollars a year for doing practically nothing, and that he was to receive an additional one million dollars if he succeeded in getting an

oil contract in Mexico which if secured probably would be due to his influence only.

Commenting on these large fees a well-known correspondent for the daily press says that these figures should not startle anyone, as large fees in large financial transactions are relatively common and he cites an instance where Mrs. Russell Sage paid an attorney one million dollars for looking over some papers and pronouncing them all right. For settling the Marshall Field estate it is reported that an attorney received several times a million dollars.

All of this news is apt to be a little disturbing to millions of people who have to struggle to secure a decent living. It also leads us to a little thought concerning the question of values, and here we medical men run up against the thought "How cheap is health and even life held by everyone, even those fellows who pay out as well as receive fabulous sums for services requiring very little time or effort and which have to do with property rather than human lives." The physician or surgeon who actually saves the lives of some of these oil magnates who so willingly and freely give hundreds of thousands of dollars to a lawyer for some simple service, probably would howl like stuck pigs if they were asked by the physician or surgeon to pay a fee of one-tenth the amount for saving his life, and these same lawyers would help to prevent the collection of a respectable fee by a medical man to say nothing of offering objections to the payment of large fees for medical or surgical services rendered themselves.

The medical profession itself is responsible for this generally low estimate placed upon professional services rendered by members of the medical profession, for in the first place no physician or surgeon, no matter how talented or what his reputation, has ever charged a fee that compares with the attorney's fees mentioned in this discussion; and in the second place, medical men as a class are so infernally jealous of each other, and show so little tendency to pull together toward a common end, that they create a sentiment in the public mind which is antagonistic to the collection of large fees for medical or surgical services rendered, no matter how able the patient may be to pay any sum demanded. Who ever heard of lawyers objecting to the fees charged by any of their number? On the other hand, who ever heard of lawyers doing any charity work? The Lord knows that doctors are doing charity work all of the time, and a really good fee for any medical or surgical service is seldom received and at best never approaches the compensation of the majority of good lawyers for services that are far inferior in value. Medical men always have been and always will be charitable, but it is time for a more general recognition of the value of

their services on the part of those able to pay. Medical fees never will smell of oil but they ought to look favorably when placed beside legal fees whether oil is involved or not. And another thing, doctors themselves should quit passing unfavorable opinions concerning fees received by their confreres. Men in no other profession or trade do as much of that kind of "crabbing."

EDITORIAL NOTES

DEAR DOCTOR:

THE JOURNAL and the Cooperative Medical Advertising Bureau of Chicago maintain a Service Department to answer inquiries from you about pharmaceuticals, surgical instruments and other manufactured products, such as soaps, clothing, automobiles, etc., which you may need in your home, office, sanitarium or hospital.

We invite and urge you to use this Service.

It is absolutely FREE to you.

The Cooperative Bureau is equipped with catalogues and price lists of manufacturers, and can supply you information by return mail.

Perhaps you want a certain kind of instrument which is not advertised in THE JOURNAL, and do not know where to secure it; or do not know where to obtain some automobile supplies you need. This Service Bureau will give you the information.

Whenever possible, the goods will be advertised in our pages; but if they are not, we urge you to ask THE JOURNAL about them, or write direct to the Cooperative Medical Advertising Bureau, 535 N. Dearborn St., Chicago, Illinois.

We want THE JOURNAL to serve YOU.

JUDGE is maintaining its long established reputation for being funny. It is carrying chiropractic advertising!

A CHIROPRACTOR in Elkhart has been called upon to pass an opinion as to the sanity of a man placed in the city jail. Ye gods, what are we coming to next!

DIPHTHERIA immunization is carried on to a considerable extent in the Eastern states with a noticeable reduction in the number of cases of diphtheria as compared to former years. Why shouldn't we have a more general adoption of immunization in Indiana? Physicians could do a great deal in educating the public concerning the value of this preventive measure.

THE 1924 session of the American Medical Association is to be held in Chicago, June 9 to 13. The chairman of the local Committee on Arrangements is J. W. Van Derslice, with offices in room 1522 Marshall Field Annex, 25 East Washington Street, Chicago. Those who are to attend the Chicago session may receive assistance through this committee on arrangements in securing accommodations and such advice as required.

WE hope that the next legislature will pass a law under which the feeble-minded, chronically insane, and habitual criminals may be sterilized to prevent reproduction of offspring that may become wards of the state. Such a law has been passed in a few states, and should be enacted in

Indiana. It not only would be of distinct advantage in furthering public health, and in preventing the procreation of defects, but would result in an economic saving that is well worth the consideration of the taxpayers of the state.

IN a recent issue of *Health News*, the weekly publication of the New York State Department of Health, the question of calling chiropractors "doctors" is discussed. The suggestion is made that they should be given the privilege of being known by the title M.V.—Manipulator of Vertebrae. Truly this is not a bad suggestion, as a distinction certainly should be made between vertebrae manipulators and members of the medical profession. This would be unambiguous and truly descriptive of their declared method.

THE latest thing is Mah Jongg dermatitis caused by handling the lacquered Japanese tiles used in playing this popular Oriental game. It is said that it has been proved scientifically that improperly dried lacquer causes the skin disease, and the carelessness with which the work is done is accounted for by the popularity of the game and a demand for Mah Jongg sets that can scarcely be met by the manufacturers. The dermatitis yields to soothing applications, but it is reported that those who are especially sensitive to lacquer will have to be content with some other game.

AS WE go to press we note that Dr. Frank A. Priest, of Marion, has formally announced his candidacy for nomination for governor on the Democratic ticket. This will be interesting news to the medical profession in view of a previous announcements of Dr. Carleton B. McCulloch, of Indianapolis, who also is a candidate for the nomination for governor on the Democratic ticket. Both of these doctors stand high in the estimation of the medical profession and in the event that either is nominated and elected we may expect a faithful performance of duty and, above everything else, some attention to those things in which the medical profession is interested.

IN various parts of Indiana attempts are being made to prevent the use of toxin-antitoxin as a preventive of diphtheria, and the use of antitoxin in the treatment of diphtheria. As usual with objectors to scientific medicine, the facts are distorted, opinions and statistics are misquoted and the whole discussion treated in a manner to create distrust if not open rebellion against life-saving measures that have proved their value beyond peradventure of doubt. Wouldn't it be a good idea for our State Board of Health and our newly created Bureau of Publicity of the Indiana

State Medical Association to hold some public health meetings in communities where this vicious propaganda is being circulated and attempt to give the people some idea as to what scientific medicine really has accomplished for their own good?

IN and around Walkerton, Indiana, it is said that the people are beginning to doubt the efficacy of antitoxin in the treatment of diphtheria because the newspapers, very foolishly, are publishing some articles, probably inspired by chiropractors or other pseudo-medical cults, in which the value of antitoxin is scoffed at and the people, by inference at least, are urged not to permit the use of antitoxin. On top of it all a non-graduate licensed ex-soldier boasts of his ability to cure diphtheria with a spray "forty times stronger than carbolic acid," used every five minutes, and he also scorns the use of antitoxin.

Now is a good time for our Bureau of Publicity to get in its work and aid the physicians in the vicinity of Walkerton in educating the public and perhaps some newspapers as to the viciousness of the propaganda that is being circulated.

THERE is an old saying that "A man is not without honor save in his own country." As an evidence that the saying does not always hold good, we ask the indulgence of our readers in reproducing from the January number of the *Indianapolis Medical Journal* the following:

"THE JOURNAL published by the Indiana State Medical Association is especially helpful to the association and its members, and is a potent factor for good. It preaches the gospel of medical affairs and quite frequently does not hesitate to 'call a spade a spade.'" It is safe to say that no one could fill the place as acceptably and successfully as the present editor, Dr. Albert E. Bulson, Jr. He is thoroughly acquainted with the needs of the association, and always takes a personal interest in its affairs. He is energetic, enthusiastic, and eminently possesses the ability to conduct a medical publication of its character."

We feel justified in returning the compliment, for Dr. Samuel E. Earp, the editor of the *Indianapolis Medical Journal* is the president of the Indiana State Medical Association, and, as a president and as an editor, he not only is a "live wire" but exemplifies in preaching and practice the highest ideals of the profession.

THE Insulin treatment of diabetes, now attempted by everyone, lay persons as well as physicians, as expected shows results not as satisfactory as they should be. The market is flooded with preparations of unknown potency and durability, and it is quite possible that overdosage has occurred in many cases, and it even may be surmised that there have been serious accidents in consequence. Insulin treatment should be under the control of a medical man competent to give it,

and in this connection we can do no better than quote the statement issued by the Insulin committee of the University of Toronto, where the discovery of Insulin first saw light:

"It is strongly urged by the Insulin committee that physicians who may desire to employ this useful anti-diabetic remedy in practice, should visit some clinic in which it has been in use. This is advisable, not only in order that they may become familiar with questions of dosage, and the treatment of cases showing symptoms of overdosage, but also that they may learn to recognize the type of case it should be prescribed for. It should be remarked in this connection that many, if not most cases of diabetes can be adequately treated by dietetic measures alone, and that the necessity for insulin treatment can be determined only by careful clinical study."

ASIDE from the fact that the Federal government places a heavy tax upon earned incomes of physicians, a still greater injustice is done by refusing to make deductions from income for money actually spent in connection with medical work. Any sort of commercial enterprise, big or little, can deduct as expense any money expended in keeping up the business. A doctor in carrying on his work and fitting himself to compete with others is obliged to spend money in attending medical meetings and clinics, to say nothing of losing time for which he receives no compensation. It is decidedly unfair and makes the medical profession "the goat" in income tax exactions when these expenses are not deductible from income. Every doctor should be interested in changing this unfair attitude of the government in taxing members of the medical profession, and to that end we suggest that each and every member of the Indiana State Medical Association write a letter of protest to the Indiana senators and congressmen concerning the unfair treatment we are receiving.

THIS is good. The newspapers reported a blinded soldier, Tom Skeyhill, of the late war, having had his vision restored by an operation. Whether an osteopath had anything to do with the case is not the question, though it is evident that one osteopath desires to place the case on record as a cure by osteopathy, and in the correspondence column of the *Fort Wayne News-Sentinel*, of February 23, we find this truly osteopathic explanation of the case:

"After being completely blind three years he was actually cured by Dr. Riley Moore, an osteopathic physician in Washington, D. C.

"During the Gallipoli peninsular campaign a shell exploded, forcing the top of his head back and his chin forward and upward so the atlas was dislocated backward in such a way that the blood supply and the cervical sympathetic nerve supply were both cut off. The osteopath corrected the misplacement and Skeyhill's sight was restored."

This is enough to make all of the anatomists of the past turn over in their graves and those of

the present bow their heads in shame. We believe that the Zionists preach that the world is flat, and it isn't strange that there are other people like the osteopaths and chiropractors who are willing to preach that the human anatomy is quite different than scientists for ages have proved it to be.

THERE is beginning to be a little agitation concerning the possibility of securing and maintaining a sufficient supply of insulin to meet the demand, and quite recently a plea has been made (*Journal of the American Medical Association*, February 9, 1924) to conserve the insulin supply. It is pointed out that patients with the acute type of diabetes will in a few years lose all native tolerance for glucose and become completely dependent upon insulin. Also it cannot be too strongly emphasized that a partially diabetic patient may suddenly be converted into a totally diabetic patient by insulin. For such patients it is necessary to keep on hand at least a month's reserve supply of insulin, and the distributors of insulin are responsible in part for the welfare of such patients.

As has been indicated, there are two classes of diabetic patients; those to whom insulin is a luxury and those to whom it is a necessity. To those diabetic patients who do well for years on a reasonably restricted diet, insulin offers little, but there are the diabetic patients who have a low glucose tolerance and to those patients insulin becomes a necessity and oftentimes in large amounts in order to secure definite results. In such cases the insulin reserve becomes a question of importance.

DR. G. W. H. KEMPER, an ex-president of the Indiana State Medical Association, and loved by everyone in the state, formerly of Muncie but now of Pasadena, California, young and frisky at past eighty-four years of age, writes us that he will come back to Indiana in May for his usual summer visit in his old home. He recently told the editor of THE JOURNAL that it either was due to early piety or early deviltry that enabled him to continue so youthful, but anyway we wish we could get the recipe. Many of us would be willing to be either pious or devilish to be as spry and as physically and mentally alert at eighty-four as is Dr. Kemper. It looks now as though we would hear from him in the same old way when he is a hundred and four, so it is our wish that he can enjoy the wonderful Southern California climate during the next twenty years, and come back to us for a visit each summer as he has been doing the last few years.

And speaking of these doctors young in feelings if not in age, we extend our congratulations to Dr. A. H. Shaffer, of Huntington, Indiana, who

last December celebrated his ninety-fifth birthday. It is one thing to grow old and quite another thing to grow old in years but remain young in feelings and mentality, a result devoutly desired by us all.

THE Professional Insurance Corporation, of Des Moines, Iowa, is sending out, reasons for which are unknown, a copy of the text of the court decision in favor of a practitioner of the Abrams electronic system of medicine prosecuted for alleged fraudulent use of the mails in connection with the practice of the Abrams method.

To our notion the verdict means little, and for the reason that a follower of Abrams may be of the gullible kind and actually believe that certain things may be accomplished, and that he is justified in making promises of results that are generally considered impossible. In other words, an individual practicing the Abrams methods and without any intent to defraud anyone may promise unobtainable results, and that seems to have been the issue in the case under consideration. Neither Abrams nor the electronic system of medicine was on trial, and the questionable evidence of men of questionable judgment as to results secured from Abrams treatment, as well as the evidence to the contrary by other medical men even though introduced in the trial, was not a matter of consideration. As a matter of fact you can secure evidence tending to prove most anything, but it is quite another thing to have *trustworthy* evidence, and thereon hangs the question of the real value of the Abrams discoveries and treatment.

THE United States Spectacle Company, of Chicago, sends through the mails a letter which says: "No matter where you live, I promise to send you a pair (spectacles) that will enable you to see perfectly and satisfy you in every respect or you will owe me nothing. I positively guarantee a perfect fit or there will be no charge whatsoever. They will protect your eyes, preventing eye strain and headaches, and enable you to read the smallest print, thread the finest needle, and see far or near."

The one to whom this offer is made is merely asked to give age and length of time that glasses have been worn. The price of the glasses is \$4.98. Of course if any pair of glasses sent out according to this plan should prove to be perfectly fitted in all respects it would be a relatively rare occurrence and an instance of good guess work only. However, it is quite likely that there are many ignorant people who bite at the bait and are satisfied with some magnification of objects as seen through the glasses, but in the vast majority of cases more harm than good is

done. In all probability this firm is not prevented the use of the mails because the burden is placed upon the victim in accepting the offer. The whole thing is so inconsistent and comes so near to being a fraud that we wonder why the mails are permitted to be used for such purposes.

THE pseudo-medical cults and quacks of every description were never so insistent upon forcing their vicious propaganda upon the public. When they can't get a communication published gratuitously in the lay press they pay for it and make certain that when it appears it will be published as reading matter and not advertising. Unfortunately there are many editors and publishers who put the dollar above principle and accept most any kind of copy no matter whether it comes from trustworthy sources or not. It seems to us that the medical profession has been more or less asleep or it would have put forth greater effort to influence editors and publishers of lay papers and magazines to refuse to accept medical advertising of every description and to accept as reading matter pertaining to health only such articles as have the sanction and approval of educated and well trained followers of scientific medicine. For years the anti-vaccinationists, the anti-vivisectionists, and all the other anti-medical bleeders and blatters, to say nothing of the pseudo-medical cults and the quacks, have been discrediting scientific medicine for the purpose of furthering their own ends. It is time that the editors and owners of lay publications should be given the facts concerning the unsavory reputations and connections of most of these objectors to rational medicine, to the end that the people shall be protected from misrepresentations and fakery.

ANNOUNCEMENT has just been made by E. Fullerton Cook, chairman of the Revision Committee of the United States Pharmacopoeia that standards for whisky and brandy as medicines will be included in the new Pharmacopoeia now being revised. This is in response to a demand by the physicians of the country.

Under the national prohibition laws, whisky and brandy are classed as medicines and as such are legally prescribed in many cases of serious illness, but at the present time no legal standards exist for their purity.

All physicians of the General Revision Committee, acting as a sub-committee, were appointed to study the situation and take the necessary action. This sub-committee has issued the following statement:

"In view of the fact that a large number of physicians in the United States believe alcohol to be a valuable therapeutic agent, and in view of the widespread adulteration of the alcoholic liquors at present available, the

members of this Referee Committee feel that for the protection of the public, there should be an official standard for medicinal spirits."

By including standards for whisky and brandy as medicines, in the Pharmacopoeia, which is the legal standard for drugs and medicines under the Food and Drugs Act, the machinery of the U. S. Department of Agriculture and of the Boards of Health and Boards of Pharmacy throughout the country is enlisted in protecting the sick against adulterated and poisonous products.

QUITE recently we have received a number of letters and newspaper clippings from various portions of the state calling our attention to the vicious editorials, private communications, and advertising promoted and instigated by members of pseudo-medical cults and others who are opposed to the teachings and practice of regular medicine. One of the duties of our newly created Bureau of Publicity will be to make an attempt to counteract the effect of such propaganda, and the matter is referred to the Bureau for consideration. The Bureau has laid out a very comprehensive and far-reaching program of activities and, as we have said before, a great deal of discretion must be exercised to avoid overlapping the work of various agencies attempting to do something toward conserving the public health and public welfare. In fact, already there is a great deal of overlapping of work on the part of these various uplift agencies, and the Bureau will have to use a good deal of discretion in avoiding duplication of very commendable work done by others. One of the most potent reasons for the existence of the Bureau is to offset the vicious propaganda put out by members of the pseudo-medical cults and others in opposition to rational medicine, and the Bureau will have its hands full if it does that and nothing more. As well stated by the secretary of the Bureau, one of the functions, and we think it is the chief one, is in "securing a more sympathetic understanding by the public of the profession's achievements, purposes, ideals and work." It should endeavor to further the ethical and economic interests of the profession, and should cooperate with the Committee on Public Policy and Legislation and other like agencies of the State and county societies.

THE recent decision of the United States court in favor of the Chemical Foundation, Incorporated, has a far-reaching effect and is a victory for the United States government in overcoming the monopoly previously existing in the manufacture and marketing of some of the most important medical chemicals used by the medical profession. Prior to the World War we were dependent almost wholly upon foreign sources of supply for

many important drugs, the patents for which were held in this country by foreign owners. With these patents in force the drugs could not be manufactured in this country by American firms. During the war these patents were taken over by the United States Government and subsequently sold to the Chemical Foundation, Inc., so that no exclusive licenses might be issued to American concerns. This plan of devoting these patents to the public use has proven a success and now many of the more important medicinal chemicals previously unobtainable from American sources are now manufactured in this country, and it is hoped that never again will we be dependent upon foreign monopoly in drug supplies. The Council on Pharmacy and Chemistry of the American Medical Association and other agencies have suggested and provided interesting and distinctive names for American synthetics which are rapidly replacing those formerly made only abroad. Physicians will perform a patriotic duty if they use the synthetic drugs and refer to these drugs by their American names. Among the products so designated are arsphenamine, neoarsphenamine, barbital, barbital sodium, cincofen, neocincofen and procaine. It is hoped that the medical profession will take advantage of this opportunity to encourage independent chemical companies in this country.

It may not be generally known what the requirements of private laboratories are in order to be approved by the Indiana State Board of Health and, accordingly, we publish the same, which are as follows:

"Qualifications of Director: The director, or the one making the clinical diagnosis, shall have a medical degree and shall have had special work in Public Health Laboratory methods in some standard hospital or diagnostic laboratory.

"Qualifications of Technician: Members of the staff who make the laboratory diagnosis shall be high school graduates, who have had the equivalent of two years pre-medical training in some college, a technical school, or have been trained under fully qualified experts, and shall have had not less than one year's experience in a bacteriological laboratory where the methods used in the diagnosis of communicable diseases are those approved by the American Public Health Association in its 'Standard Methods.'

"The laboratory requiring approval shall be required to submit a statement of the training and experience of its director and technicians, and agree to report its findings upon a set of unknown smears as a test of its ability to make correct diagnosis.

"If the laboratory desires to make the Wasser-

mann test it must file with the State Laboratory in Indianapolis an accurate description of the reagents and methods used.

"The laboratory seeking recognition shall agree to file monthly with the director of the state laboratory, a report of all examinations made for diphtheria, tuberculosis, typhoid fever, gonorrhea and syphilis with the results of each."

In connection with this subject we are strongly of the opinion that a private laboratory devoting itself exclusively to laboratory work, which includes bacteriology, pathology and chemical analysis, should be presided over by a man possessing the medical degree in addition to special training in laboratory work. We are opposed to the so-called technician who without medical training, but perhaps with some experience in laboratory work, presumes to pass an opinion upon which perhaps a diagnosis largely will depend. In fact we are of the opinion that those laboratories that are most useful are not only presided over by medical men but work hand in hand, or in consultation so to speak, with the clinicians.

So far as we know Indiana is the first state to adopt requirements for recognition of private laboratories.

DEATHS

JOHN A. ALDRED, M.D., of Indianapolis, died January 25 at the age of 69 years. Dr. Aldred graduated from the Medical College of Indiana, Indianapolis, in 1879.

HENRY JAMESON, M.D., of Indianapolis, died February 12 at the age of 76 years. Dr. Jameson graduated from the Bellevue Hospital Medical College, New York, in 1871.

WILLIAM HENRY WHITE, M.D., of Franklin, died at the home of his son in Indianapolis, January 30, following an illness of several months. Dr. White was 73 years old. He was a graduate of the Indiana Medical College, Indianapolis, in 1882. Dr. White was a member of the Indiana State Medical Association, the American Medical Association and the Miami County Medical Society.

HENRY CLAY GEMMILL, M.D., formerly of Indianapolis, died at his home in Hartford, Connecticut, January 10, at the age of 50 years. Dr. Gemmill was working in connection with the U. S. Veterans' Bureau at the time of his death. He was a member of the American Medical Association and the Indiana State Medical Association. Dr. Gemmill graduated from Rush Medical College in 1896.

NEWS NOTES AND PERSONALS

Anything in the line of physicians' supplies or equipment may be obtained from advertisers in THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION. Patronize these advertisers, for it means a continuance of their advertising patronage, and the latter means a larger and better Journal for you.

THE Lawrence County Medical Society held its regular meeting at Bedford, February 6.

DR. ERIC CRULL, of Fort Wayne, has been re-elected superintendent of the Irene Byron tuberculosis sanitarium.

DR. T. HENRY DAVIS, of Richmond, has retired from the active practice of medicine after sixty-six years of service in that community.

DR. WILLIAM T. CARMICHAEL, the oldest practicing physician in Bartholomew county, celebrated his eightieth birthday February 12.

THE Tri-County Medical Society held a meeting at Seymour, February 7. Dr. J. R. Eastman, of Indianapolis, presented a paper on "Goitre."

THE Dearborn-Ohio County Medical Society held a meeting at Aurora, January 31. Dr. J. M. Jackson presented a paper on "Endocrinology."

DR. WALTER PHILLIPS MORTON, of Indianapolis, and Miss Blanche Liffick, have announced their marriage on Sunday, January 27, in New York City.

DR. CHARLES P. EMERSON, of Indiana University, School of Medicine, has been made a member of the executive board of the National Committee for Mental Hygiene.

THE Jasper-Newton County Medical Society held its regular monthly meeting at Goodland, February 29. Papers were presented by Drs. I. M. Washburn and W. C. Mathews.

THE Indianapolis Medical Society held a meeting at the Indiana Dental College, Indianapolis, February 5. Papers were presented by Drs. Louis D. Belden and W. F. Hughes.

THE Muncie Academy of Medicine held its meeting at the Hotel Roberts, February 28. An address was given by Dr. William C. MacCarty, of the Mayo Clinic, Rochester, Minn.

As soon as arrangements can be completed, a nurses' training school for colored girls, similar to the regulation training school for white nurses, will be opened at the City Hospital, Indianapolis.

THE Clinton County Medical Society held a meeting at Frankfort, February 7. Dr. C. A. Robison presented a paper on "Sinus Infection," and Dr. J. R. Sickler presented a paper on "Ocular Defects."

PIERSON W. BANNING, of Los Angeles, has received the major award of the Benjamin Franklin Fund for his prize winning volume "Mental and Spiritual Healing: A Text Book for Physicians and Metaphysicians."

THE Jay County Medical Society held a meeting at Portland, February 1. The following officers were elected for 1924: President, Dr. C. W. Paddock; vice-president, Dr. Kidder; secretary-treasurer, Dr. Harriet Wiley.

THE Chamber of Commerce of Evansville is giving assistance to the Vanderburg County Medical Society in its attempt to determine whether or not any physicians are practicing in the county under fake certificates.

THE regular monthly meeting of the Kosciusko County Medical Society was held at Warsaw, February 19. Dr. C. C. DeBois presented a paper on "Mastoiditis," and Dr. A. C. McDonald presented a paper on "Appendicitis."

THE Daviess-Martin County Medical Society held its regular monthly meeting at Washington, February 7. Dr. C. P. Scudder presented a paper on "Review of Obstetrical Experience from 1903 to 1923," and Dr. C. H. Yenne presented a paper on "Bronchial Pneumonia in Children."

THE Elkhart County Medical Society held a meeting at Goshen, February 7. Dr. J. A. Work, Jr., delivered a paper on "Differential Diagnosis of Diseases of the Cervix," and Dr. H. N. McKee presented a paper on "Case Reports of Submucous Resection of Septum with End Results."

THE sixth annual meeting of the Western Electro Therapeutic Association will be held in the Little Theater, Kansas City, Mo., April 17 and 18, under the presidency of Dr. Harry H. Bowing of Rochester, Minn. An invitation is extended to the medical profession of nearby states.

THE Northeastern Indiana Academy of Medicine, composed of Noble, Dekalb, LaGrange and Steuben counties, held a banquet at Gawthrop Inn, Kendallville, February 14. A paper was presented by Dr. W. D. Gatch, of Indianapolis, on "A Report of 362 Consecutive Cases of Gangrenous Appendicitis."

THE Grant County Medical Society held a meeting at Marion, February 26. Dr. A. J. Pacini, of Chicago, presented a paper on "Ultra-Violet Light Therapy." The Society had an attendance of fifty-six for this meeting, twenty-seven of whom were regular members of the Society, which made a membership attendance of 67.5 per cent.

THE Montgomery County Medical Society has reported its list of new officers as follows: President, Dr. A. L. Loop, Crawfordsville; vice-president, Dr. E. C. Lidikay, Ladoga; secretary-treasurer, Dr. R. J. Millis, Crawfordsville; delegate to state meeting, Dr. F. E. Dennis, Crawfordsville; delegate to district meeting, Dr. T. Z. Ball, Crawfordsville.

IN addition to the articles already enumerated the following have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association:

Abbott Laboratories:

Butesin Picrate,

Butesin Picrate Ointment.

Parke, Davis & Co.:

Dibromin.

E. L. Patch Co.:

Patch's Flavored Cod Liver Oil.

Vitalait Laboratory of California:

Vitalait Culture Bacillus Acidophilus.

Wilson Laboratories:

Epinephrin-Wilson,

Epinephrin Powder-Wilson,

Epinephrin Solution, 1:1,000- Wilson.

THE United States Public Health Service announces that in response to an extensive demand for summer school work in public health it has arranged with Columbia University, the University of California, the University of Michigan and the University of Iowa to conduct public health summer schools this year. The dates are as follows:

The University of Iowa, Iowa City, June 9 to July 18.

The University of California, Berkeley, June 23 to August 2.

The University of Michigan, Ann Arbor, June 23 to August 2.

Columbia University, New York City, July 7 to August 15.

The aim of these summer schools is: (1) To provide up-to-date intensive training for all persons engaged in any kind of public health work; (2) to furnish up-to-date instruction which will enable practicing physicians to deal effectively with the more important causes of mortality and

disability, especially cases referred by industrial clinics, school clinics, public health nurses, and similar agencies; (3) to bring together practicing physicians, health officers and other sanitarians and thus to establish a more cooperative relationship in the work of disease prevention.

SOCIETIES AND INSTITUTIONS

TIPPECANOE COUNTY MEDICAL SOCIETY

The Tippecanoe County Medical Society met at the Lahr Hotel, January 8, 1924. Dinner was served at 6:15 P. M. During the business meeting which followed, Dr. W. R. Simmons, of the Wabash Valley Sanitarium, was voted a member of our society; also Dr. Andrew G. Larson was admitted by transfer from the Chicago Medical Society.

Plans were started for a large public meeting during the month of May.

The papers for the evening formed a symposium on nephritis. Dr. F. S. Crockett spoke chiefly of the anatomy and plupiology of the kidney and the various tests used for testing kidney function.

Dr. F. A. Loop dealt with the subject more from the standpoint of general medicine and Dr. M. M. Lairy emphasized nephritis and life insurance as well as the diagnosis and management in general.

The papers were very ably given by men who know the subjects.

It is the feeling of the society that these papers should be given at the meeting of the State Medical Association at Indianapolis in September.

The papers were discussed by Dr. George F. Keiper, Dr. F. T. Romberger, Dr. F. P. Hunter, Dr. R. D. Bayley and Dr. E. Van Reed, each discussant speaking from his own special viewpoint.

Prof. H. E. Enders, of Purdue University, and Dr. Charles Hupe cited interesting cases relating to this subject.

The society adjourned. J. C. BURKLE, Secretary.

The Tippecanoe County Medical Society met in regular session at the Hotel Lahr on February 1, 1924. A joint meeting was held with the druggists.

Prof. C. B. Jordan, of Purdue University, gave a very interesting talk on the revision of the Pharmacopeia. He went into some detail in giving the work of the various committees.

Dr. A. J. Bauer gave a paper on "Better Cooperation of the Physicians and Druggists," emphasizing some of the weak points and showing how they may be remedied.

Mr. F. M. Best spoke of the subject from the druggist's viewpoint.

Prof. W. F. Gidley, of Purdue University, gave an excellent discussion, showing how the two professions may better cooperate. Other discussants were Dr. G. F. Keiper, A. V. Kienly, Karl Bachman and Dr. F. S. Crockett.

J. C. BURKLE, Secretary.

BUREAU OF PUBLICITY

The Bureau of Publicity of the Indiana State Medical Association has been in operation two months. An office was obtained at 1004 Hume-Mansur Building, Indianapolis, January 15, and the necessary furniture and printing were secured at the lowest bids.

The office has been in correspondence with the other state organizations doing similar work and we are trying to avoid their mistakes and profit by their experience. We have procured a large amount of literature in booklet and pamphlet form from the American Society for Control of Cancer, American Association for Prevention of Heart Disease, United States Public Health Service,

National Committee for Prevention of Blindness, American Medical Association, American Social Hygiene Association, New York State Board of Health and a number of others. Articles of about 800 words are being prepared on various medical subjects, and much of the material will be taken from the above mentioned sources.

Arrangements are being made with the newspapers in each county to use these releases at weekly intervals. The articles are censored by the Bureau members and at least one authority on the subject matter. The first medical publicity meeting was held at Lebanon, February 21, and was considered a success by all concerned. Dr. C. P. Emerson, who is Dean of the Indiana University School of Medicine, spoke on the Ideals of the Medical Profession. Dr. Edgar Kiser spoke on Heart Disease and Dr. J. H. Stygall explained the program of the Bureau of Publicity. Other meetings are being arranged as the county secretaries call for them. The program of the Bureau and a questionnaire were sent to the secretary of each county medical society and seventeen have replied up to date.

Dr. S. E. Earp, the President of the State Association, and the secretary of the Bureau, have been on the program at county medical society meetings at Greenfield, Brazil and Anderson. At these meetings the value of unity of the medical profession and more thorough examinations was stressed. It is hoped that the county medical societies will take advantage of the Bureau service and that each county will put on at least one medical publicity meeting this year. It is suggested that the county secretaries arrange for a medical speaker on important lay organization programs, and the Bureau will be pleased to provide the speaker when it is so desired.

CORRESPONDENCE

IN APPRECIATION OF DR. HENRY JAMESON
To the EDITOR:

It was my good fortune to be associated in the office with Dr. Henry Jameson from the beginning of my medical career in Indianapolis. The first eight years of this association he was actively engaged in the practice of medicine and was considered one of the leaders of the profession in Indianapolis, if not in Indiana.

What he accomplished as a practitioner of medicine in this community, and as professor of medicine in the Indiana Medical College, can best be told by the physicians and surgeons who were closely identified with him in this work.

My memory recalls a courteous, kindly gentleman, whose smile was reassuring and whose countenance instilled confidence in those who were afflicted.

His education, literary, scientific and medical, and his wonderful health had much to do with his success in life; but Dr. Jameson possessed characteristics of loyalty, sympathy and diplomacy also responsible for his high attainment in the practice of medicine and his standing in the community. Sympathy was the basis of his ethics. Some one has stated: "Tact is the essence of success in medicine." Certainly no one employed it more successfully than Dr. Henry Jameson. He believed the practice of medicine was an art as well as a science, and he never lost sight of this fact in his practice, for it was by his tact or innate diplomacy that he gained the confidence and esteem of his patients.

He maintained all through life a vital contact with science, literature and art. He cultivated early in life a love for nature which held his interest not only out of doors, but in his library as well. When he noticed during the past year that his interest in nature was not so keen, he remarked to his daughter, "I know I am slipping because the trees and flowers do not thrill me as

they once did." And, using his own term, when he "slipped," a lovable man, one of the grand men of medicine—Dr. Henry Jameson—passed on.

DANIEL W. LAYMAN, M.D.
608 Hume-Mansur Bldg., Indianapolis.

TRUTH ABOUT MEDICINES

NEW AND NONOFFICIAL REMEDIES

CORPUS LUTEUM-LEDERLE.—The fresh substance from the corpora lutea of the hog or cow, dried and powdered. For a discussion of the actions and uses of ovary preparations, see New and Nonofficial Remedies, 1923, p. 210. Corpus luteum-Lederle is supplied in the form of 2-grain tablets only. Lederle Antitoxin Laboratories, New York.

CORPUS LUTEUM EXTRACT-LEDERLE.—A sterile solution of those constituents of the corpus luteum which are soluble in water containing sodium chloride 0.85 per cent, sodium citrate 1 per cent and chlorbutanol 0.5 per cent. Each Cc. contains 0.02 Gm. of soluble matter in addition to sodium chloride, sodium citrate and chlorbutanol. For a discussion of the actions and uses of ovary preparations, see New and Nonofficial Remedies, 1923, p. 210. The preparation is marketed in 1 Cc. ampules and in 5 Cc. vials. Lederle Antitoxin Laboratories, New York.

OVARIAN RESIDUE-LEDERLE.—The residue from the fresh ovaries of the hog or cow after the ablation of the corpus luteum, dried and powdered. For a discussion of the actions and uses of ovary preparations, see New and Nonofficial Remedies, 1923, p. 210. Ovarian residue-Lederle is supplied in the form of 3-grain tablets only. Lederle Antitoxin Laboratories, New York.

SILVER NITRATE SOLUTION 1 PER CENT-LEDERLE.—An aqueous 1 per cent solution of silver nitrate contained in ampules composed of beeswax. The preparation is intended for the prophylaxis of ophthalmia neonatorum. For use, a pin hole is made in the ampule and, after suitable preliminary cleansing of the eye, two drops are placed in each eye of the newborn. Lederle Antitoxin Laboratories, New York.

WHOLE OVARY-LEDERLE.—Whole ovarian glands of the hog or cow, freed from extraneous matter and dried at or below 38 C. For a discussion of the actions and uses of ovary preparations, see New and Nonofficial Remedies, 1923, p. 210. Whole ovary-Lederle is supplied in the form of 5-grain tablets only. Lederle Antitoxin Laboratories, New York. (*Jour. A. M. A.*, Feb. 2, 1924, p. 391.)

FLUMERIN-H. W. AND D.—Disodium-2-hydroxy-mercurifluorescein. The disodium salt of 2-hydroxy-mercurifluorescein. Flumerin-H. W. and D., when injected intravenously, is tolerated by rabbits in doses containing from eight to twenty times the amount of mercury present in the therapeutic dose of other mercurial drugs commonly used. When injected into rabbits with syphilitic lesions, the drug brings about resolution of the lesions without apparent injury to the kidney. When injected intravenously into man in doses of 3 mg. per Kg., flumerin has caused the disappearance of spirochetes from primary and secondary syphilitic lesions. Flumerin has brought about resolution of the lesions and in about one-half the cases changed a positive blood Wassermann reaction to negative. In tertiary syphilitic lesions resolution of the lesions with a disappearance of a positive Wasserman was brought about in a majority of cases treated. The dose of flumerin-H. W. and D. is from 0.002 to 0.005 Gm. per Kg. of body weight injected intravenously in 2 per cent aqueous solution. The drug is marketed in tubes containing respectively 0.15 Gm., 0.20 Gm., 0.25 Gm. and 0.30 Gm. Hynson, Westcott & Dunning, Baltimore. (*Jour. A. M. A.*, Feb. 9, 1924, p. 469.)

EPINEPHRIN-WILSON.—A brand of epinephrin-N. N. R. Made from the suprarenal gland. For a discussion of the actions, uses and dosage of epinephrin, see New and Nonofficial Remedies, 1923, p. 112. Epinephrin-Wilson is marketed in the form of epinephrin powder-Wilson (vials containing epinephrin-Wilson, 1 grain), and epinephrin solution, 1:1,000-Wilson (containing epinephrin sulphite equivalent to 1 part epinephrin-Wilson in 1,000 parts of physiological solution of sodium chloride). Wilson Laboratories, Chicago. (*Jour. A. M. A.*, Feb. 23, 1924, p. 531.)

PROPAGANDA FOR REFORM

IMMUNIZATION AGAINST TYPHOID.—Ordinarily typhoid vaccine is administered at intervals of seven days. It is said that if the interval is less than seven days, the immunity may be less than after longer intervals. It is asserted also that the maximum response follows when the intervals between the injections are lengthened to eighteen or twenty days. No definite statement can be made as to what the optimal intervals really are. Immunity after antityphoid inoculation is not absolute. Army medical officers express the opinion that immunity from inoculation begins to decline in from two to two and one-half years; but even after four and five years, the typhoid rate of inoculated troops has been estimated at about one-fourth that of uninoculated troops. (*Jour. A. M. A.*, Feb. 2, 1924, p. 411.)

TREATMENT OF LICHEN PLANUS.—Lichen planus can be usually successfully managed by the intramuscular injection of some preparation of mercury. Mercuric chlorid is commonly employed in a dosage of 0.015 gm. (one-quarter grain) twice weekly. A 1 per cent solution of this drug in physiologic sodium chlorid solution is prepared, and 15 drops injected at the first dose, 20 the second and subsequently 25 at each injection. From eight to sixteen injections are commonly sufficient to clear up the disorder. Local measures for relief of itching may be employed at the same time. (*Jour. A. M. A.*, Feb. 2, 1924, p. 411.)

THE ABSORPTION OF EPINEPHRIN.—Although epinephrin is absorbed from the mucous membranes of the nose, throat, mouth, urethra, vagina and rectum, the effectiveness of such modes of introduction is too uncertain to make them popular. The drug is not absorbed from the gastrointestinal canal to induce any appreciable effect. Intravenous administration must be used with extreme caution and the manifestations secured are likely to be rather evanescent. The response to intramuscular injection is considerable. There is a widespread belief that the subcutaneous administration of epinephrin causes little effect and that the action is decidedly uncertain. However, the relief which is secured from the hypodermic injection of epinephrin in asthmatic patients is evidence that absorption by this route is rapid and satisfactory. It probably proceeds by lymphatic rather than by blood vascular channels. (*Jour. A. M. A.*, Feb. 9, 1924, p. 473.)

THE INSULIN RESERVE.—It is highly probable, according to R. N. Wilder, that patients with the acute type of diabetes will, in a few years, lose all native tolerance for glucose, and become completely dependent on insulin. In such cases 37 units (old standard) of insulin may be required, and in some cases as much as 56 units a day. A partially diabetic patient may suddenly be converted into a totally diabetic patient by infection and, therefore, a month's supply of insulin should be kept on hand. Reginald Fitz and William P. Murphy state that there are two classes of diabetic patients: Those to whom insulin is a luxury and those to whom it is a necessity. They hold that the wise physician will conserve the use of insulin to the cases of such diabetic patients as can dispense with it or use only small amounts and will hold it in reserve as an indispensable product, for the patients

who require large amounts in order to secure definite results. (*Jour. A. M. A.*, Feb. 9, 1924, p. 473.)

"LIME STARVATION" AND "NEU-BONE."—A series of articles by Alfred W. McCann is now appearing in the New York Evening Mail in which it is asserted that there is a deep laid plot on the part of the New York Tuberculosis Association, the New York Health Commissioner, or the American Medical Association to keep from the medical profession and the public the alleged fact that there is a treatment for tuberculosis infinitely more efficacious than that now employed. This treatment is stated to be based on the theory that tuberculosis is caused by lime starvation. McCann tells us that the originator of the "lime starvation" theory of treatment is one John A. Russell, and he also brings in the name of William Grant Hague as one of the chief apostles of Russell's theory and treatment and proposes the use of a calcium preparation "Neu-bone." For more than twenty-five years Russell has been riding the "lime starvation" hobby. For nearly ten years a New York concern has been exploiting the "Russell Emulsion" and the "Russell Prepared Green Bone." A few years ago, William Grant Hague was going around the country delivering lectures before medical societies advertising the Russell products. The statements about Neu-bone suggest that this is the Russell Prepared Green Bone under a new name. The medical profession is thoroughly familiar with the lime starvation theory and treatment. It has been weighed in the balance of therapeutic and clinical tests and found wanting. In 1917, the Council on Pharmacy and Chemistry reported on the Russell products and stated that the overworked lime starvation theory certainly lacked any tangible confirmation. (*Jour. A. M. A.*, Feb. 9, 1924, p. 489.)

TREATMENT OF PERNICIOUS ANEMIA.—Arsenic and blood transfusion are the two established forms of therapy in the treatment of pernicious anemia, though neither is curative. Arsphenamin in doses of 0.03 to 0.06 gm. intramuscularly at intervals of days or weeks has been found useful in some cases, though it has failed in others. (*Jour. A. M. A.*, Feb. 9, 1924, p. 491.)

FROZEN TOXIN-ANTITOXIN.—Students in two Massachusetts institutions were inoculated with diphtheria toxin-antitoxin mixture, and thereafter, forty-four suffered severe local and constitutional reactions. Investigation revealed the fact that the serums used had been subjected to extremely low temperature and later thawed before injection. It was discovered that freezing dissociates the combination of toxin and antitoxin. (*Jour. A. M. A.*, Feb. 16, 1924, p. 552.)

ICHTHYOL AND ICHTHALBIN OMITTED FROM N. N. R.—The Council on Pharmacy and Chemistry publishes a report announcing the omission of Ichthyol and Ichthalbin from New and Nonofficial Remedies and a report on the therapeutic value of Ichthyol on which the deletion of Ichthyol and Ichthalbin is based. Ichthyol was introduced into dermatology about forty years ago, and it came into wide use during its skillful exploitation. It has been difficult to obtain acceptable evidence concerning the therapeutic value of Ichthyol. The opinion in regard to its value has been divided with good observers on both sides of the question. After some years of consideration and doubt, the Council has come reluctantly but decisively to the conclusion that there is no satisfactory evidence that Ichthyol has any therapeutic value other than that of a mild antiseptic and that of being soothing to inflamed mucous membranes. Merck & Co., who market the product in the United States, declined to limit their claims so as to harmonize them with the views of the Council, and therefore, the Council has omitted Ichthyol from New and Nonofficial Remedies. The Council also omitted Ichthalbin, marketed by E. Bilhuber, Inc., New York. Ichthalbin is described as a compound of ichthyolsulphonic acid and albumin. Its actions are

(Continued on Adv. Page xx.)

Suprarenalin Solution

A fine product in a convenient package

SUPRARENALIN SOLUTION 1:1000 is the incomparable preparation of the kind. It keeps well and is put up in a g. s. bottle with cup stopper. By working from the solution in the cup, contamination of the contents of the

original package is avoided.

Ischemic action of Suprarenalin Solution is enhanced and prolonged by the addition of equal parts of Pituitary Liquid (Armour), the Premier Product of Posterior Pituitary.

SUPRARENALIN OINTMENT 1:1000

is very bland and its effects lasting

ARMOUR AND COMPANY

CHICAGO



We are Headquarters
For the Endocrines

WALLACE-SOMERVILLE SANITARIUM

Succeeding the Petty & Wallace Sanitarium

MEMPHIS, TENN.

WALTER R. WALLACE, M.D.
WILLIAM G. SOMERVILLE, M.D.

FOR THE TREATMENT OF

**DRUG ADDICTIONS, ALCOHOLISM
MENTAL AND NERVOUS DISEASES**

Located in the Eastern suburbs of the city.
Sixteen acres of beautiful grounds.
All equipment for care of patients admitted.



Louisville Neuropathic Sanatorium

INCORPORATED

1412 South Sixth Street, Louisville, Kentucky

and Nervous Diseases. Situated in residence portion of the city, yet quiet and retired. Rates furnished upon request.

W. E. GARDNER, A.B., M.D.
Medical Director

W. E. BENDER, M.D.
Resident Physician



TRUTH ABOUT MEDICINES

(Continued from Page 100)

stated to be essentially the same as those of Ichthyol. Therefore, E. Bilhuber, Inc., was informed that, unless the therapeutic claims made for Ichthalbin conformed to the claims permissible for Ichthyol, Ichthalbin would be omitted from New and Nonofficial Remedies. Circulars in use during 1922 contained recommendations for the internal use as an intestinal antiseptic and in skin diseases. Since these claims were incompatible with the evidence obtained by the Council, Ichthalbin was omitted. (*Jour. A. M. A.*, Feb. 16, 1924, p. 565.)

CARBON TETRACHLORIDE FOR HOOKWORM.—Carbon tetrachloride is at present obtaining such an amount of favorable notice that, unless subsequent experience demonstrates as yet unknown dangers, it may be considered a suitable method for the treatment for hookworm. The drug is palatable, requires no preparation of the patient and is relatively nontoxic. The only fatal results so far recorded were associated with the use of an impure product. The commercial product is unfit for use. Hence, the New and Nonofficial Remedies quality should be insisted on by prescribing carbon tetrachloride Medicinal-N. N. R. The dosage generally recommended is 0.2 Cc. (3 minims) for each year of life; with an adult, a dose not exceeding 3 Cc. In prescribing, one may order twice the amount indicated for a single dose, and the patient may be instructed to repeat the dose at an interval of fourteen days. It is simply administered from a tablespoon which has been half filled with sweetened water. It is usually best to administer magnesium sulphate two hours after the drug is given. (*Jour. A. M. A.*, Feb. 16, 1924, p. 569.)

BOY'S TIMEPIECE

"Mummy, is it lunch time yet?"

"No, darling, not for another hour."

"Well, then, my tummy must be fast."—

Passing Show (London).

Indiana State Medical Association

(Continued from Adv. Page viii)

ENTERTAINMENT COMMITTEE—John R. Newcomb, Indianapolis, Chairman; A. L. Marshall, Indianapolis; Ernest Rupel, Indianapolis; John Sluss, Indianapolis.

FINANCE COMMITTEE—Alfred Henry, Indianapolis, Chairman; Harry Langdon, Indianapolis; E. E. Padgett, Indianapolis; W. W. Garshwiler, Indianapolis; Robert Moore, Indianapolis.

HOTEL AND HOUSING COMMITTEE—A. E. Gudel, Indianapolis, Chairman; LaRue Carter, Indianapolis; A. B. Graham, Indianapolis; C. R. Strickland, Indianapolis.

GOLF COMMITTEE—W. S. Tomlin, Indianapolis, Chairman; H. H. Wheeler, Indianapolis; Goethe Link, Indianapolis; Thos. L. Sullivan, Jr., Indianapolis.

PUBLICITY COMMITTEE—Thos. V. Keene, Indianapolis, Chairman; Norman Jobs, Indianapolis; J. H. Taylor, Indianapolis; Thos. J. Beasley, Indianapolis; C. S. Goar, Indianapolis.

MEETING PLACE COMMITTEE—Charles N. Combs, Terre Haute, Chairman; Wm. A. Doeppers, Indianapolis.

RECEPTION COMMITTEE—All members of Indianapolis Medical Society.

MILITARY COMMITTEE—J. R. Eastman, Indianapolis, Chairman; LaRue D. Carter, Indianapolis; W. M. Stout, Newcastle; Charles N. Combs, Terre Haute; Carl Habich, Indianapolis; R. G. Hendircks, Indianapolis; J. S. Robison, Winchester.

BUREAU OF PUBLICITY—W. N. Wishard, Indianapolis, Chairman; F. W. Cregor, Indianapolis, Secretary; David Ross, Indianapolis; J. H. Stygall, Executive Secretary.

ADVISORY BOARD TO BUREAU OF PUBLICITY—(Appointed by Council)—S. E. Earp, President Indiana State Medical Association; E. M. Shanklin, Chairman of the Council; A. E. Bulson, Jr., Editor *Journal of the Indiana State Medical Association*.



Building Absolutely Fireproof

Waukesha Springs Sanitarium

For the Care and Treatment of
NERVOUS DISEASES

BYRON M. CAPLES, M.D., Medical Director

FLOYD W. APLIN, M.D., Superintendent

WAUKESHA, WIS.

The Walker Hospital Clinic

EVANSVILLE, INDIANA

Surgeons

James Y. Welborn, M.D.

Wm. R. Davidson, M.D.

Wm. E. McCool, M.D.

I. C. Barclay, M.D.—Internal Medicine

Dalton Wilson, M.D.—House Physician.

W. W. Hewins, M.D.—Urologist

W. A. Biggs, D.D.S.—Dentist

K. T. Meyer, M.D.—Roentgenologist

C. L. Seltz, M.D.—Pathologist

C. S. Baker, M.D.—Anesthetist

Associates

W. R. Hurst, M.D.

D. V. McClary, M.D.

Fierce McKenzle, M.D.

Drs. Ravdin & Ravdin

Drs. Field & Clements

The Laboratory, under the direction of Dr. Seltz, is fully prepared to make all tests of proven value in clinical diagnosis, including serology, blood chemistry, basal metabolism, examination of tissues, etc.

Containers for specimens and directions will be furnished on request.
Radium and Deep Therapy.

THE JOURNAL

OF THE

INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

ISSUED MONTHLY under Direction of the Council

ALBERT E. BULSON, Jr., B.S., M.D., Editor and Manager

OFFICE OF PUBLICATION: 406 West Berry Street, FORT WAYNE, INDIANA

VOLUME XVII

APRIL, 1924

NUMBER 4

ORIGINAL ARTICLES

CHRONIC ADHERENT PERICARDITIS

FREDRICK A. WILLIUS, M.D. AND

ARLIE R. BARNES, M.D.

SECTION ON CLINICAL CARDIOLOGY, MAYO CLINIC
ROCHESTER, MINNESOTA

A recent review made of the cases in which hospital treatment was given on the service of the Section on Cardiology of the Mayo Clinic during the year 1923 revealed the fact that chronic adherent pericarditis occurred in 7 per cent of the patients. This was a higher percentage than we had anticipated, as the occurrence of chronic adherent pericarditis is generally considered to be rather infrequent. Smith, in 1913, reported an analysis of 3,053 necropsies performed at the Massachusetts General Hospital from 1897 to 1913, and the condition was found in sixty-two (2 per cent) of the cases. Holst, a year later, found chronic adherent pericarditis in 4 per cent of 1,586 necropsies, and recently Lyter found 6 per cent in 514.

ETIOLOGY

The causative factors of chronic adherent pericarditis obviously are those of acute pericarditis. Whenever a pericardial exudate, fibrinous, or fluid, is slowly absorbed, a certain amount of organization takes place in it, resulting in adhesions between the two layers, in the same manner that adhesions form after pleuritis and peritonitis. Similarly, the parietal layer of the pericardium may become involved by extension from an inflammatory process in the lungs, pleura or mediastinum, binding the heart to contiguous structures.

The etiologic factors of pericarditis vary somewhat according to the reports of various observers. Hirschfelder, reporting 230 cases of pericarditis occurring on the medical service of the Johns Hopkins Hospital, found associated conditions as follows: Endocarditis in 23 per cent, myocarditis in 3 per cent, pneumonia in 17 per cent, rheumatism in 13 per cent, nephritis in 14 per cent, tuberculosis in 11 per cent, pleuritis in 7 per cent, gonorrhea in 1 per cent, aneurysm in 0.9 per cent, leukemia in 0.9 per cent, and syphilis

in 0.4 per cent. There were sixteen (7 per cent) cases in which no associated conditions were named. Pericarditis is most common in association with rheumatic fever, and is invariably only a part of the resulting carditis. Osler found pericarditis in 6 per cent of 330 cases of rheumatic fever, and Sears, in 51 per cent of 100 cases.

Pneumonia is also a common cause of pericarditis; it occurred in 18 per cent of Sears' cases, and in 5 per cent of Chatard's. Since the severe pandemics of influenza, the number of patients showing residual evidence of pericarditis coming under our observations at the Mayo Clinic has increased definitely. Stone, in 1919, reported a high incidence of pericarditis attending post-influenzal pneumonic empyema at Fort Riley. In cases in which operation was performed, pericarditis (seropurulent or purulent) occurred in 36 per cent of forty-eight cases, and in 46 per cent of 100 cases in which operation was not performed. Dwinell found pericarditis as a complication of epidemic influenzal pneumonia at Camp Dodge in 56 per cent of 122 cases. It was found that the pericardium was apparently involved by continuity, and in most instances there were associated purulent processes, such as empyema and mediastinitis.

Tuberculosis of the pericardium was found in 8 per cent of Breitung's necropsies, and in 16 per cent of Holst's cases, and usually occurs as a secondary manifestation to an adjacent tuberculous process in the chest. We have observed one case of primary tuberculous pericarditis which was characterized by massive recurrent effusion.

A low-grade obliterating type of pericarditis is sometimes found in patients dying of chronic constitutional diseases, such as chronic nephritis, diabetes mellitus, leukemia, and so forth. It is probably often due to an intercurrent infectious process. Pericarditis occurs also in the course of severe infections, such as septicemia, and is frequently purulent, and fatal.

MECHANICAL EFFECTS OF CHRONIC ADHERENT PERICARDITIS

A variable period of time may elapse from the onset of acute pericardial inflammation until the

heart becomes hampered by the resulting adhesions. The form and extent of the adhesions may vary greatly, and the degree of the resulting cardiac embarrassment will be largely dependent on these factors. The pericardial cavity is sometimes entirely obliterated. The greatest mechanical interference of the heart probably occurs when extensive adhesions bind it to the surrounding structures. The heart may be fixed to the costal cartilages and the chest wall anteriorly; there may be cohesion of the pericardium to the pleuræ, fixing the edges of the lungs; there may be fixation with the mediastinal structures, or abnormal attachment to the diaphragm.

It is evident that impairment of cardiac motility, either active or passive, increases the work of the heart, and the burden falls largely on its chief propulsion chambers, the ventricles. Further interference with the heart occurs when the vena cava is bound down or partially strangulated, preventing adequate filling of the heart. In a similar manner the emptying of the heart may be hindered by the tugging of adhesions attached to the aorta.

If the left ventricle is chiefly interfered with, the resulting symptoms will be those of an inadequate pulmonary circulation, namely, dyspnea, asthma-like attacks, and edema of the lungs. However, if the right ventricle is greatly hindered, the picture is that of a failing right heart with the development of tricuspid regurgitation, congestion of the liver and abdominal viscera, and accumulations of fluid, especially ascites.

The presence or absence of associated or co-existing disease of the endocardium and myocardium are very important factors in determining the degree of the mechanical interference resulting from pericardial adhesions.

SYMPTOMS

The symptoms of chronic adherent pericarditis vary in type and severity in individual cases, depending on the degree of cardiac interference, and on the presence or absence of associated cardiac disease. They are, in general, chronic heart failure (dyspnea and palpitation), weakness, and so forth. Cyanosis is often marked, especially if the return circulation to the heart is impeded; often it is very marked in the lips and face, and is less marked in the lower portions of the body. Pain on effort, anginal in character, localized at the apex or at the base of the sternum, is often present, especially when the adhesions are quite extensive. Hirschfelder found pain in from 65 to 70 per cent of his cases. The symptoms will vary, of course, depending on whether the right or the left heart fails.

Pick described a syndrome, which bears his name, running the course of a primary hepatic cirrhosis, beginning with ascites, enlargement of

the liver, often slight icterus, weakness, dyspnea, and demonstrable signs of an adherent pericardium. It is very interesting that these patients, even when considerable ascites is present, often do not have edema of the lower extremities. The exact nature of this peculiar syndrome is still obscure, but probably results from advanced chronic adherent pericarditis, associated with a low grade common infectious process, or intoxication.

PHYSICAL FINDINGS

The physical signs of chronic adherent pericarditis are as variable as the symptoms, and in a large measure depend on the same factors. The patient may have a pasty pallor, or at times a marked degree of cyanosis. The veins of the neck may show filling during inspiration, followed by collapse during expiration. Systolic retraction of the lower portions of the posterior or lateral walls of the thorax, as described by Broadbent, is diagnostic of an adherent pericardium. His warning, however, must be borne in mind. "The systolic recession of spaces alone is, however, not a trustworthy indication, as it may be due to atmospheric pressure, more especially when the heart is much hypertrophied."

When the apex beat is visible, a distinct systolic retraction at this point may often be seen. When considerable cardiac fixation occurs, the apex beat will not be found to move on postural changes.

Cooper's respiratory ratio has some value in adherent pericarditis. This consists in determining how long the patient can hold the breath in inspiration and five minutes later, the same in expiration. The ratio in normal persons, expressed in seconds, was found to be:

$$\text{Inspiration} = 40 \text{ to } 70$$

$$\text{Expiration} = 20 \text{ to } 25$$

in cardiac disease, 20/15; in patients with adherent pericarditis, 9/25 (paradoxical ratio).

Palpation. Broadbent called attention to the presence of a diastolic shock sometimes present over the areas on the chest wall where there is systolic retraction. He attributed it to the elastic recoil of the chest wall at the beginning of diastole as soon as the pulling force exerted during systole ceases.

Thrills, systolic in time, may be palpable in various areas, and are due probably to tugs on the adhesions, or to the rubbing of the roughened layers of the pericardium. The thrills are rarely presystolic in time. There may be an inspiratory diminution in the size of the pulse, the so-called pulsus paradoxus.

Perussion. A variable degree of cardiac enlargement is present, which is verified by percussion.

Auscultation. The auscultatory phenomena are in a large measure determined by the coexisting valvular defects. Occasionally a presystolic rumble is heard where the valves are normal, due probably to the stretching of adhesions by the contraction of the auricles. Occasionally reduplication of the first sound is produced by pericardial adhesions. At times distinct to-and-fro rubs are audible over the lower sternum, or slightly to the left of the lower sternum, and are exaggerated by having the patient lean forward. These rubs are sometimes only audible under conditions in which the rate of circulation is increased, as produced by the stress of effort, and so forth.

The gastric sounds of Riess may be present, and consist of a peculiar loud metallic character of the heart sounds when the stethoscope is placed over the epigastrium. They are present usually when considerable fixation to the diaphragm exists.

Roentgenographic Examination. Roentgen-ray studies, especially by means of the fluoroscope, will reveal a decrease or lack of cardiac motility. When the fibrous bands of adhesions are dense, or contain lime deposits, they are readily demonstrated by means of the roentgen-ray.

ASSOCIATED FINDINGS

In Lyter's study of thirty necropsies of chronic adherent pericarditis, the following findings were disclosed:

Lungs and Pleura. Pleural effusion, three cases; chronic pulmonary tuberculosis, six cases; chronic pleural adhesions, fifteen cases; and chronic passive congestion, eighteen cases.

Heart and Great Vessels. Chronic myocardial fibrosis, fifteen cases; acute endocarditis, one case; arteriosclerosis, fourteen cases, and chronic endocarditis, six cases.

Liver. Chronic passive congestion, fourteen cases; chronic cirrhosis, ten cases; chronic degeneration, eight cases; chronic perihepatitis, three cases; syphilis, two cases; in one case the liver did not reveal marked changes.

Spleen. Chronic passive congestion, twenty cases; chronic perisplenitis, two cases; chronic hyperplasia, two cases; chronic atrophy, one case; in five cases the spleens were normal.

Kidneys. Chronic nephritis, twenty-four cases; chronic congestion, three cases; acute cloudy swelling, three cases, and amyloid degeneration, two cases.

The frequency with which pericardial adhesions are associated with disease of the myocardium, arteries, liver and kidney leads Lyter to suggest that a common etiology exists in the form of a chronic infection or intoxication.

PROGNOSIS

The ultimate prognosis of chronic adherent pericarditis is not good. This is, of course, de-

pendent on the degree and extent of associated cardiac and other visceral disease.

BIBLIOGRAPHY

1. Breitung: Quoted by Hirschfelder.
2. Broadbent, W. H. and Broadbent, J. F. H.: Heart disease with special reference to prognosis and treatment. New York, William Wood and Co., 1900, p. 249.
3. Chartard, J. A.: Acute pericarditis complicating acute lobar pneumonia. Bull. Johns Hopkins Hosp., 1905, xvi, 334-338.
4. Cooper, C. M.: The respiratory ratio. A preliminary note. *Jour. Am. Med. Assn.*, 1909, lii, 1182.
5. Dwinell, W. G.: Laboratory report on epidemic pneumonia. *Am. Jour. Med. Sc.*, 1920, clviii, 216-232.
6. Hirschfelder, A. D.: Diseases of the heart and aorta. Philadelphia, Lippincott, 1918, p. 590.
7. Holst, P. F.: Adherent perikardium. Norsk. Mag. f. Laegevidensk., 1914, lxxv, 1107. Abstr. *Jour. Am. Med. Assn.*, 1914, lxi, 1798.
8. Lyter, J. C.: Incidence, associated pathology and clinical diagnosis of chronic pericardial adhesions. *Am. Jour. Med. Sc.*, 1920, clxix, 891-897.
9. Osler, W.: The principles and practice of medicine. New York, Appleton, 1909, p. 775.
10. Sears: Quoted by Osler.
11. Smith, W. H.: Chronic adherent pericarditis. *Jour. Am. Med. Assn.*, 1913, lxi, 739-742.
12. Stone, W. J.: The management of postpneumonic empyema based upon 310 cases. *Am. Jour. Med. Sc.*, 1920, clviii, 1-29.

FOREIGN BODIES IN THE AIR PASSAGES: DIAGNOSIS AND LOCALIZATION*

EUGENE L. BULSON, M.D.

FORT WAYNE

Recognition of the presence of a foreign body in the air passages too often is delayed, or the diagnosis is misleading or uncertain, or perhaps not made at all. It is the purpose of this paper to call attention to some of the outstanding features of foreign body cases, the methods of making reasonably trustworthy diagnosis and to emphasize the advisability of following definite routine in making an examination.

When a suspected foreign body case comes in, the following questions arise: Is a foreign body present and, if so, where is it located? Is peroral endoscopy indicated and are there any contraindications to such a procedure? In order to answer these questions a definite routine should be followed in every foreign body case, and the following is suggested:

1. History.
2. Complete physical examination, including indirect laryngoscopy.
3. Roentgenography.
4. Endoscopy.

The history should be as complete as it is possible to obtain, and it should include the following data: (a) The date and nature (with details) of the accident; (b) The symptoms noted by the patient or others of laryngeal spasm, wheezing, cough, pain, dyspnea, dysphagia, odynophagia, regurgitation, etc.; (c) Determination of the nature of the foreign body and a duplicate obtained of it if possible; (d) The amount, character and odor of sputum. Increased amounts of purulent,

*Presented before the Section on Ophthalmology and Otolaryngology of the Indiana State Medical Association at the Terre Haute Session, September, 1923.

foul odored occasionally blood tinged sputum sometimes indicate long foreign body sojourn; (e) Mode of onset of symptoms, whether immediately following supposed accident or delayed in their occurrence; (f) Occurrence of sudden dyspnea and cyanosis; (g) Previous treatment or attempts at removal.

It sometimes is impossible to get a history of foreign body. The initial choking and cough may have escaped notice or may have been forgotten. In such cases the negative history is valueless. In support of this the following case is reported by Dr. Jackson as an illustration: A man, 58 years of age, for a year and a half had been suffering from chronic bronchitis with very severe exacerbations from time to time. He had been under treatment in a sanitarium and had improved considerably. On recurrence of his bronchitis a fluoroscopic examination was made which showed a darkened area at the root of the right lung. This was attributed to calcified glands. Finally a roentgenogram was made which showed a foreign body which was removed by Dr. Jackson and proved to be the metal tip from an atomizer which the patient recalled having used. Prompt recovery followed. In this case there was no history nor were there symptoms other than those mentioned that would lead one to suspect foreign body.

The symptoms produced by foreign bodies in the air passages depend upon the nature of the foreign body, its location, whether it is obstructive or non-obstructive, etc. The initial symptoms usually elicited from the patient who thinks he has aspirated some foreign body into the air passages are choking, gagging, coughing and wheezing, often followed by a symptomless interval. This should be borne in mind and the physician not be misled by thinking that the foreign body has been expelled. The foreign body may be located anywhere in the air or food passages from the nose to the lung or from the mouth to the small intestine, or it may have been coughed up and spat out by the patient. The presence of a foreign body located in the larynx may be manifested by one or more of the following symptoms: hoarseness, wheezing, aphonia, croupy cough, dyspnea, cyanosis, hemoptysis, and subjective sensations of a foreign body. Croupiness usually means subglottic swelling. Pain may be a symptom and if so the foreign body usually is located in the laryngeal region. The larynx may tolerate a non-obstructive foreign body for a relatively long period of time without producing any symptoms. On the other hand, an obstructive foreign body may be quickly fatal by laryngeal or tracheal impaction.

In case the foreign body has passed on to the trachea and bronchi, the following symptoms will be noted in addition to those already mentioned; cough, which usually is present at once and may

be either recurrent or continuous; the violence of the cough depends as a rule upon whether or not the foreign body is fixed in the trachea or movable. In the former instance there is little cough, while a shifting foreign body produces violent fits of coughing. In the case of a movable foreign body the movements frequently can be felt by the patient and will be described as such. Dyspnea usually is present in the case of tracheal foreign bodies and absent when the intruder is located in the bronchus. "The dyspnea and cyanosis produced by a foreign body in the trachea are due to the bulk of the foreign body plus the subglottic swelling caused by the traumatism of the walls of the trachea." Symptoms of bronchial foreign bodies depend upon the length of time the foreign body has been present in the bronchus. The respiratory rate may be increased, depending on the amount of lung tissue which is out of commission, whether as a result of the obstruction or inflammatory sequelae.

Non-obstructive metallic bodies in the bronchi afford few symptoms for weeks or months, while obstructive foreign bodies cause atelectasis, drowned lung, and eventually pulmonary abscess. Symptoms may occur at once or after an interval of weeks, and cough, blood streaked sputum, metallic taste or special odor of foreign body may be noted. After a number of months or years, non-obstructive foreign bodies produce changes in the bronchi which produce chills, fever, sweats, emaciation, inturnd nails, foul expectoration, hemoptysis, in fact all of the symptoms of pulmonary sepsis, etc. It is a well known fact that many of these cases of prolonged sojourn in the bronchi have been erroneously diagnosed as pulmonary tuberculosis. However, in these cases the apices of the lungs are normal and tubercle bacilli are absent from the sputum. According to Dr. Jackson, "Periodic attacks of fever with chills and sweats, and followed by increased coughing and the expulsion of a large amount of purulent, usually more or less foul material, all are more or less diagnostic of foreign body as to call for exclusion of this probability with the utmost care. Emaciation, clubbing of the fingers and toes, night sweats, hemoptysis, in fact all of the symptoms of tuberculosis are simulated with exactitude, even to the gain in weight by an outdoor regime."

Of all the various types of foreign bodies those which are most troublesome and dangerous are substances of an organic nature such as vegetable matter. The early symptoms of these irritating foreign bodies are sufficiently characteristic and important to warrant a separate discussion. There is practically always an initial laryngeal spasm, with foreign bodies of organic matter such as peanuts, beans, water melon seeds, kernels of corn, etc. A violent laryngo-tracheo bronchitis (for which the peanut is notorious) is at once produced with toxemia, cough, fever, dyspnea and cyanosis,

the gravity and severity of the symptoms varying inversely with the age of the child. Inflammation usually occurs within twenty-four hours in children under two years of age. The child may "drown in its own secretions" through inability to get rid of the thick mucilagenous pus unless the intruder be removed promptly.

As an example of the value of a careful history and physical examination, a case in the author's practice follows:

Master Charles C., age two and one-half years, referred by Dr. Ira Leckrone, of Silver Lake, Indiana, gave a history of having had a severe choking spell eleven days previously while having grains of corn in the mouth. For two days after this the child breathed with difficulty and had many severe coughing spells and then improved so that breathing was considered normal for five or six days when paroxysmal coughing began again. Physical examination disclosed limited expansion, dull percussion note and diminished breath sounds on the right side. Roentgenograms by two different roentgenologists were pronounced negative. However, in view of the history and physical findings, a careful search with the bronchoscope was made and a large kernel of corn located in the right main bronchus and removed. Except for a little bronchial edema and a slight cough, both of which cleared up in five or six days, the patient made an uneventful recovery.

Physical Examination: A general physical examination should be made in all cases. This should include an examination of the nose, throat, pharynx, and indirect examination of the nasopharynx and larynx. Very often the intruder will be located in the course of this examination. A careful and thorough examination of the chest should be made by a competent internist, for it is here that often some of the most valuable localizing signs are found. While not distinct contraindications to an endoscopic procedure in the case of the presence of a foreign body, on the other hand it is well for the laryngologist to know whether there are any pathological conditions which will render endoscopy unusually dangerous, such as aneurism of the aorta, excessive blood pressure, cardio-renal disturbances, the presence of a hernia, existence of tabes dorsalis or other central nervous disorders.

It is impossible in a paper of this kind to enumerate all the various physical signs produced by a foreign body in the air passages, depending as they do upon the nature of the foreign body, the amount of obstruction caused, the location of same, etc. Consequently, only those signs which are most commonly present and are of chief diagnostic significance in localizing the foreign bodies will be given.

Foreign bodies in the larynx usually produce a wheezing respiration which is peculiar in type

and easily referred to this organ. If the foreign body is of such size as to become impacted and cause obstruction, dyspnea will occur, followed by cyanosis and the usual indrawing of the suprasternal notch, intercostal spaces, supraclavicular fossae, etc. Of course, if this condition has existed for some time and exhaustion is imminent, the action of the heart will be very irregular and weak.

In the case of a foreign body lodged in the trachea the following signs described by Dr. Jackson are pathognomonic: the so-called "audible slap"; "palpitatory thud," and "asthmatoïd wheeze." The "audible slap" is the name given to the peculiar sound produced by the sudden, subglottic, expiratory or bechic arrest of the foreign body. When felt by the thumb placed on the trachea, it is called "palpitatory thud." The "asthmatoïd wheeze" is the sound produced by the vibration of the air passing between the foreign body and the wall of a bronchus or trachea. The sound is heard by placing the ear or stethoscope in front of the patient's open mouth during prolonged forced expiration. Obviously, in the case of a small rounded foreign body which causes *complete* obstruction of a bronchus this sign will not be present. As described by Dr. Jackson, the "asthmatoïd wheeze" resembles the wheezing of an asthmatic patient, the chief difference being that there is more or less association of the sounds of rales in the wheezing of an asthmatoïd case while in the wheezing of the foreign body case the sound is drier. In the case of more or less secretion around the foreign body the presence of bubbling rales will be added which, however, usually can be removed by having the patient cough several times.

Physical signs of a case of foreign body in a bronchus are about as diverse as the bronchi themselves. A recently aspirated non-obstructive metallic foreign body, such as a pin, may produce no signs at all. The signs of diagnostic importance are chiefly those of partial or complete bronchial obstruction, the most nearly characteristic of which are (1) diminished expansion; (2) percussion note impaired (except, of course, in cases of obstructive emphysema); (3) decreased vocal fremitus; and (4) diminished intensity of breath sounds. There are three main types of obstruction, each of which produces characteristic and more or less constant signs.

In the case of complete obstruction of a bronchus there will be an atelectasis of the invaded side together with a rapid accumulation of secretions and manifested by the usual signs of such a condition, as limitation of expansion, impaired percussion note, absence of breath sounds and rales on the affected side, with a compensatory emphysema on the opposite side. In the case of small rounded foreign bodies, such as marbles, pebbles, foreign bodies of organic nature such

as beans, watermelon seeds, nut kernels, etc., there may be produced a valve-like obstruction which allows the air to enter the affected side during inspiration and prevents it from escaping during expiration. In this case the condition is one of obstructive emphysema with its attending physical signs on the affected side such as limited expansion, a tympanitic note on percussion, diminished or absent breath sounds, usually little change in the vocal resonance and fremitus. In addition the heart is often displaced somewhat to the opposite side. A non-obstructive metallic body may give no pathologic symptoms even after a considerable sojourn in a bronchus as illustrated by the following case reported by Dr. Jackson:

A patient, 45 years of age, came into the clinic with a history that eight days previously while in the dentist's chair he had aspirated a dental broach. The patient noticed for a few minutes the sensation of foreign body in the throat, but there occurred no coughing, no sense of dyspnea, no dysphagia or odynphagia. It was assumed that the foreign body had been swallowed and the patient was advised to eat hard bread and coarse foodstuffs. The stools were watched carefully, but the instrument was not recovered. On the third day following the accident the patient complained of a scratching sensation in the sub-sternal and laryngeal regions which caused dry, hacking cough. On the seventh day there developed an aching sensation in the lower chest, which seemed relieved by lying prone. On consulting a physician a radiograph of the chest was advised which, being made, showed the presence of the broach in the bronchus. No attempts to remove it had been made previous to the entrance of the patient to Jefferson Hospital. On the ninth day following the accident the foreign body was removed by peroral bronchoscopy under local anesthesia from the small branch of the lower right lobe bronchus. There was no reaction. The cough immediately ceased after the bronchoscopy and the patient left for home feeling perfectly well following the removal of the foreign body. The breath sounds of the lower right lobe posteriorly became more distinct and only an occasional rale was heard. Radiographs following the bronchoscopy showed absence of the foreign body as well as any pathology.

The following comments on the case by Dr. Jackson are of interest in illustrating several points which the writer has endeavored to bring out in this paper: "The slight disturbance at the time of the accident is very noteworthy, for it emphasizes the fact that the aspiration of foreign bodies is not necessarily attended by choking and dyspnea. We have in our records many cases in which the time of aspiration of the foreign body was not known, the cause of a chronic lung condition being found to be the presence of a foreign

body only after radiographic study of the chest.

"It is quite the popular opinion that a foreign body cannot be present in the bronchus without distressing symptoms. There is often a period of delusive calm in which even those symptoms incident to the trauma inflicted by the passage downward of the foreign body subside. This is followed, however, sooner or later, by symptoms of obstructed bronchial drainage and by abscess formation in that portion of the lung. This patient had only a scratching in the throat at the time of the accident, and for three days had no symptoms whatever. The tickling sensation under the sternum and in the larynx, with the slight hacking cough, might easily have been overlooked until severe damage had been caused by the intruder, had the attending physician and the dentist not been alert to the possible dangers.

"The physical examination in this case revealed no definite evidence of pathology, and consequently was of no value in the localization. This case further exemplifies the importance of an early radiographic localization of a foreign body which has disappeared down the pharynx; so that if it be in the bronchus or esophagus it may be removed before it causes harm; and if in the lower alimentary tract, that its progress may be watched so that preparation may be made to remove it by laparotomy if perforation be threatened."

In the case of partial bronchial obstruction which is of such a nature as to allow the passage of air to and fro, although somewhat retarded, as in the case of a nail, staple, etc., in the bronchus, there will be limitation of expansion, slight dullness of percussion note, diminished breath sounds in the area of dullness, impairment of vocal resonance and fremitus. The most valuable diagnostic sign in this particular type of obstruction is the presence of rales "which are heard usually with greatest intensity posteriorly over the site of the foreign body," and the harsh breathing and blowing produced by the passage of air past the foreign body.

The following note by Professor Thomas McCrae clearly summarizes the physical findings: "There is no description of physical signs which covers all cases. If the student will remember that complete obstruction of a bronchus leads to a shutting off of this area there should be little difficulty in understanding the signs present. The diagnosis of empyema may be made by the outline of the area of dullness, the fact that there is no shifting dullness and the greater resistance which is present in empyema nearly always clear up any difficulty promptly. The absence of the frequent change in the voice sounds so significant in an early, small empyema is of value. A large empyema should give no difficulty. If difficulty remains use of the needle should be sufficient. In thickened pleura, vocal fremitus is not

entirely absent, and the breath sounds can usually be heard even if diminished. In case of partial obstruction of a bronchus it is evident that air still will be present, hence the dullness may be only slight. The presence of air and secretion probably will result in the breath sounds being somewhat harsh and will cause a great variety of rales, probably coarse and many of them bubbling. Difficulty may be caused by signs in the other lung, or in a lobe other than the one affected by the foreign body. If it is remembered that these signs are likely to be detected only on auscultation, and to consist largely in the presence of rales, while the signs in the area supplied by the infected bronchus will include those of palpitation and percussion, there should be little difficulty."

Roentgenography: Every suspected foreign body case should have the benefit of a roentgenogram which is the most valuable diagnostic means of all. No difficulty should be experienced in the case of metallic foreign bodies and many of less density such as bones, shells, buttons, teeth, etc., which should show up clearly. Antero-posterior and lateral roentgenograms always should be made, for very often a foreign body lying in one plane will be invisible in the other. In case of pins and other sharp pointed objects it is also of advantage to know in which wall the point is imbedded, the angle at which the object lies, and this fact can be determined accurately only by means of views taken in each plane. In general, the following observation is of value: foreign bodies in the trachea lodge with the axis in the antero-posterior direction corresponding with the greatest axis of the trachea.

Sometimes the roentgenographic picture may be misleading, particularly when all of the findings are not analyzed with sufficient care to avoid misinterpretation. As illustrating this point the following case is reported:

Miss F. H., age 49, gave a history of having aspirated a small foreign body followed by occasional attacks of hoarseness. She presented an x-ray picture which apparently showed the existence of a small closed safety pin in the trachea immediately below the larynx. Only one picture, and that a lateral view, was presented. The patient was very desirous of having the pin removed by endoscopy. However, as there were none of the characteristic symptoms which usually accompanied the presence of a foreign body in the larynx or trachea, and she seemed a little uncertain as to the time when the pin was aspirated, she was subjected to further x-ray examinations, in spite of her objections thereto, resulting in the discovery that the safety pin which showed in the picture was in reality a pin used to fasten her clothing. To convince her of the correctness of this opinion the clothing fastened by the safety pin was removed and roentgenograms taken which proved to be negative. The patient was extremely

apprehensive and even after the negative findings hesitated about believing that no foreign body was present.

It is in the case of foreign bodies of an organic nature which are non-opaque to the roentgen-ray that difficulty in localization arises. The x-ray findings in these cases are often very puzzling and easily misinterpreted by any one not familiar with this type of work. In an analysis of some sixty or seventy cases by Dr. Willis Manges, of Philadelphia, certain x-ray evidences and signs have been found to be more or less constant. In order to better understand these findings, the pathology produced should be kept in mind. As stated earlier in the paper, such vegetable substances as beans, peanuts, kernels of corn, etc., produce an acute obstructive monolateral emphysema due to the ball valve-like action of the substance allowing a certain amount of air to enter the bronchus, but little if any to escape. Of course, there will be all variations in the picture, depending on the location of the foreign body and how much obstruction it is causing. In case obstruction is of such a nature as to completely occlude a bronchus, thereby permitting no air to enter, absorption of the contained air will occur, resulting in atelectasis of the affected side with a compensatory emphysema of the non-affected side.

The findings in cases of acute obstructive monolateral emphysema as noted by Manges are as follows: (1) Increased transparency of the affected lung; (2) depression and partial fixation of the diaphragm on the affected side; (3) displacement of heart and mediastinal structures away from the affected side; (4) increased excursion of the diaphragm on the unaffected side due to compensatory emphysema.

The diaphragmatic signs are the most important, for by them alone can one rule out compensatory emphysema. It should be remembered that all of the signs are most pronounced at the end of expiration, so in taking these pictures two instantaneous roentgenograms are made, one at full inspiration and another at the end of expiration. These signs will vary according to the amount of expiratory obstruction present. In the case of a foreign body becoming lodged in a bronchus sufficiently tight to prevent any ingress of air, the following symptoms will be noted: (1) Heart and mediastinal structures pushed toward the affected side due to the negative pressure; (2) retraction upward of the diaphragm; (3) atelectasis of the affected side; (4) compensatory emphysema of the unaffected side.

Between these two types of cases, differential diagnosis is made by being able to tell whether the emphysema is compensatory or obstructive in nature. This is done by noting the action of the diaphragm. In the acute obstructive type the diaphragm is partially fixed and depressed on inspiration, or the action may be paradoxical on

inspiration and expiration due to the stronger action of the intercostal muscles. In compensatory emphysema there is either normal action or a slight increased excursion of the diaphragm during respiration. So-called "drowned lung" and pulmonary abscess formation should be carefully excluded by an expert roentgenologist.

A roentgenogram always should be made after removal of a foreign body for it is evidence not only of removal but also will exclude the presence of a second intruder which might have been overlooked in the first study.

It sometimes happens that even in the presence of a foreign body and all of the signs and symptoms above referred to, that there still is some doubt as to the localization of the foreign body due to a negative x-ray. In all cases of unexplained bronchial obstruction a bronchoscopy is indicated.

The author is indebted to Dr. Chevalier Jackson for his personal instruction and to Dr. Willis Manges of Jefferson Hospital, for the opportunity of studying the x-ray plates in many foreign body cases at the bronchoscopic clinic, from both of whom many of the suggestions contained in this paper were obtained.

DISCUSSION

DR. W. F. MOLT (Indianapolis): We are too apt to overlook the necessity of a very thorough physical examination prior to attempting our diagnosis by the esophagoscope or bronchoscope. The tendency is—and I speak from experience—to take for granted that we have a foreign body and proceed to do a bronchoscopy or esophagoscopy, as the case may be. That is not correct. We should not even subject our patient to a local anesthetic to examine the bronchi, esophagus or trachea until we have exhausted all other means of diagnosis.

Never undertake a bronchoscopy without previously making a thorough laryngoscopic examination. If we are in doubt, we have the most valuable aid, the x-ray. This examination, I wish to emphasize, should be made by an expert in this kind of work. These cases are so important that it would be better to send your patient where an expert radiologist can make this examination. For instance, as the doctor has mentioned, cases have been shown as negative where the object was present. Now, in a case like that, the patient is dismissed and complications may arise and danger result from the delay. We take it for granted that the x-ray has told us the truth. It does not always do that.

Another point. In any case where the slightest doubt exists we should avail ourselves of the opportunity to have the internist give us his opinion. We should use every available means to determine exactly what type of thing we are going to come in contact with. Then we may be pre-

pared to meet the situation, and one examination or one trial will produce results.

Oftentimes, we will decide we have a foreign body in the bronchus and prepare to remove that, but at the time of the removal we find it is in the esophagus. My only word of caution is, be prepared for anything that may occur.

One other thing is to emphasize the roentgenologist. We should never undertake the removal of a foreign body, either in the lungs or esophagus, without a very careful x-ray examination, interpreted by some one who knows. Furthermore, the exposure should be at three different angles, as the doctor has mentioned.

DR. E. MCGINNIS (Chicago): At a recent meeting, Dr. Frazier, of Edinburg, in discussing Dr. Jackson's presentation on foreign bodies in the respiratory tract, said he was amazed at the number of foreign bodies that Dr. Jackson presented. In his experience and in the experience of his co-worker, Sir Logan Turner, they had only ten or fifteen foreign body cases in the respiratory tract. This seems almost incredible. But he explained it by saying he thought the diagnosis was not made, that a good many cases of lung abscess, pulmonary tuberculosis, and chronic bronchitis had been cases of foreign body.

In my early experience as an associate in practice to the late Dr. Ingalls, of Chicago, most of the foreign body cases we had at that time were very much delayed cases. They were cases of metal objects in one or the other of the main bronchi or secondary bronchi that had been in six or eight years. In one case the nail, almost eroded and gone, had dropped down into the bottom of the abscess. The patient was suffering from lung abscess and not the foreign body.

The x-ray, in examination for metallic objects, is indispensable and nearly always locates the foreign body and gives the distance in the bronchial tree so that we do not have to use the other physical signs that have been mentioned. It is such objects as a peanut, corn, and occasionally certain types of bone or buttons that will not cast a shadow.

We had a case awhile ago of a large overcoat button in the esophagus, at the usual position, the sterno-clavicular notch. The x-ray man said there wasn't anything in the esophagus. The little youngster could hardly swallow water and no solid substance. We were sure it was there. We also had a history of the accident. On exploration, we removed the button.

As to the history of lung conditions, tuberculosis, or cases simulating tuberculosis, in the matter of foreign bodies, we have a good many cases to illustrate that fact. I remember one case especially, that of a woman about forty-two years old who had sixteen teeth removed, with gas anesthesia, at one sitting. The oral surgeon who removed the teeth patted himself on the back

that he got all of the teeth out with gas anesthesia. She knew how many teeth she had. When he showed her the number of teeth he had extracted, one was missing. There were sixteen teeth to be extracted. He could show only fifteen. He was sure it dropped on the floor. They searched all over the office. He said, "You have swallowed it," and she was sent home and told not to worry about the other missing tooth. A couple of weeks later she developed a pain in the left side of the chest, also a little cough. There was blood-stained sputum. She had the symptoms brought out so well in the paper. After six weeks, an x-ray picture was taken, which revealed a molar in the right bronchus. This was removed, and the patient made an uneventful recovery.

DR. J. R. GILLUM (Terre Haute): There are three points I would like to emphasize. First, any one who intends to do endoscopy ought to have a well-trained organization, and I think the organization should be divided into two groups—one for diagnosis and the other for the operative procedure.

It is an easy matter to diagnose metallic or inorganic foreign bodies in the chest or esophagus, but the organic bodies are very difficult. I think that the operator should have not only a trained x-rayist but an internist who is also familiar with cases of this sort. The average nose and throat man, or the man who does endoscopy, is not well enough trained for chest auscultation. He should have some one associated with him who is trained in that form of diagnosis.

The second point I wish to bring out is the time allowed to elapse between the examination and operation. A great many unfortunate things will happen if a patient is examined and x-rayed in a doctor's office, then sent to the hospital, assigned to a bed, given a bath and prepared for operation. In every case the patient should be examined at the hospital just before bringing him into the operating room. He should be constantly watched by a nurse who has been instructed to watch all vomiting or expectoration. It is very easy for a patient between diagnosis and operation to expel the foreign body.

The third point I wish to emphasize is not to lay a patient down on his back if he has a foreign body loose in the trachea unless instruments are at hand ready for use in cases where the foreign body upon forced expectoration is lodged between the vocal cords.

DR. D. O. KEARBY (Indianapolis): I wish to cite a case, and in doing so I desire to emphasize the importance of having some one make a physical examination of the chest who knows how, and knows what he hears when he listens and percusses over a chest.

This little fellow, 12 years old, had a badly obstructed nose, due to an injury. He had infected tonsils and a considerable amount of ade-

noids. The parents were anxious that he should have a tonsillectomy and adenoidectomy. The little fellow was under weight and not doing very well generally. I felt that I could do some work in his nose at the same time under the general anesthetic. It was my purpose to adrenalinize the nose so that we would not have so much hemorrhage. I used fairly long strips of cotton that had been squeezed out dry, saturated with adrenalin.

I did the submucous resection first, and then the tonsillectomy and adenoidectomy. The operation was easily done and we did not have any trouble. We kept the boy in the hospital two days. He did not have any fever, perhaps about a half a degree the afternoon he went home. About the third day after leaving the hospital his mother said that he was not doing well and had more fever. I went out to see him, but everything seemed all right. I wanted the child gone over by some one who was capable of giving us an examination of the chest or a general physical examination. The parents had their choice of physicians and he made a diagnosis of an intestinal toxemia. This rise of temperature continued each afternoon for three or four days until I demanded that I be able to select the physician that should examine the child. I felt sure I could outline some consolidation down in the right lower lung, and the physician that I had seen him corroborated my findings. It was my idea that the next day we should take the patient back to the hospital and start a diligent search to satisfy ourselves whether or not there was some foreign material down in his lung. The next morning at ten o'clock the mother called and said that our patient had a coughing spell—it was the first coughing spell he had had during this week—and spit up a piece of cotton. The next day the patient's chest was clear and he went on to an uneventful recovery. I want to report this because it emphasizes how essential it is that we have some one examine the chest with a trained ear and a trained hand.

DR. ALBERT E. BULSON, JR. (Fort Wayne): A well-trained and experienced roentgenologist is an absolutely essential co-laborer in handling these cases of foreign body in the upper air or food passages. This has been emphasized in the history of the cases presented by the essayist as well as by cases presented by some of the discussants.

I certainly would place very little dependence upon the work of a roentgenologist who insisted upon negative findings in the case of a brass overcoat button in the esophagus of a child, as reported by Dr. McGinnis. There is, however, some excuse for the roentgenologist when the foreign body happens to be a small vegetable substance, like a peanut or a grain of corn. In the case reported by the essayist, two very com-

petent roentgenologists reported negative findings after taking numerous pictures. How necessary it is for those men to acquire more knowledge by studying their pictures carefully after knowing that the essayist had removed the grain of corn from the lung subsequent to the taking of the pictures and had it in evidence. In fact, I think that with a desire to acquire more knowledge concerning these foreign body cases it is a good plan to take a number of x-ray pictures of every case, and after the foreign body has been removed these plates should be studied carefully by both operator and roentgenologist.

It is quite true that vegetable foreign bodies do not throw a shadow, and yet, as evidenced by the plate exhibited, there are certain signs in the plate which ought to make a roentgenologist suspicious. In spite of all of the care and skill exercised we sometimes fail to recover the foreign body, and our failure may be due to the fact that we have been misled by the x-ray pictures.

Oftentimes it becomes necessary to take additional pictures after we have begun our work. In this connection I desire to report a case occurring in my practice a few years ago in which a foreign body, metallic, was indicated by the x-ray picture as being located definitely in the trachea. The patient was having attacks of spasmodic coughing. The picture showed the foreign body very clearly and I attempted its removal but could not find it, though I hunted a relatively long time for it and even explored beyond the bifurcation. Finally I announced to the attending physician and others present that I thought the foreign body had disappeared but where I was unable to state, and I desired another picture. Much to our surprise and gratification the x-ray plate showed no foreign body, and to this day I do not know what became of the foreign body except to believe that it went out during a fit of coughing or that it attached itself to swab and escaped my inspection. Ever since that time I have instructed the assistants, and have followed the rule myself, to watch carefully to see that the foreign body is not coughed or spit out by the patient, or that it does not escape discovery in case it becomes entangled in a swab used for cleaning the field of operation.

The essayist did not report another interesting case of his in which he prepared to remove a foreign body from the bronchial tree of a young child that was coming from a distant town. On the way to Fort Wayne the child became cyanotic and the doctor did an emergency tracheotomy in an automobile out in the country. The child began to breathe, but had difficult breathing when he arrived at the hospital, and before the impacted peanut could be recovered the child died. As has been stated, usually these cases can await x-ray findings, but this is one of the cases that admitted of no delay, and even with prompt attention death was not averted.

In closing I can only reiterate the necessity of the closest co-operation between the operator and the careful and experienced roentgenologist.

DR. H. J. PIERCE (Terre Haute): All non-opaque bodies, unless they have produced obstruction, will not show any change in the density of the chest. The plate presented by the essayist was made after the obstruction had been produced, and there may have been no obstruction at the time of the x-raying. These foreign bodies, when they plug up a bronchus, act as a valve, allowing the air to go out of the lung, but very little to enter, making the collapsed lung more dense than the opposite, very often producing an emphysematous condition of the side not affected, pushing the glands in the mediastinum and aorta over to the side affected.

I recently saw a case of an aortic aneurysm producing an obstruction of the bronchus from pressure. She gave all the symptoms of a foreign body located in the trachea or bronchial tubes. Fluoroscopic examination revealed a broad arch, and pressure, with one chest more dense than the other.

Another case, a maid, in a fit of laughing swallowed a pin. She came in for examination, giving us the exact location, on the outside of the chest, of the pain which she said was from the prick of the pin. On making plates nothing was discovered in the way of foreign body in the chest. Plates were then made of the entire abdomen. The pin was not found. The following morning the patient began sneezing and blew the pin out of her nose. It is well, sometimes, to x-ray the head.

I also want to emphasize the importance of making plates immediately before the patient is ready for the operating table. I had a case of a beauty pin in the bronchus of a child three years of age. After it left the x-ray room and went back to the hospital it had a coughing spell during the absence of the nurse. The patient was taken in for a bronchoscopy, but the foreign body was not found. Re-examination by x-ray did not reveal the foreign body. On careful search of the room the pin was found under the bed, where it had been expelled during a coughing spell. Since that experience we keep the patient continually under observation until the bronchoscopic examination is made.

DR. EUGENE L. BULSON (closing): In regard to Dr. Molt's statements, he brought out a very good point when he said to be prepared to do both a bronchoscopy and esophagoscopy. In Dr. Jackson's bronchoscopic clinic he never fails to have an esophagoscopic tube of the correct size along with his bronchoscope and also a complete tracheotomy set. So he is prepared for any emergency. As Dr. Molt said, it is always the unexpected that happens. So you can't any more than be prepared.

Dr. McGinnis made the point that the diagnosis of a foreign body is oftentimes not made at all. A lot of these chronic lung conditions are foreign body cases that never have been diagnosed. This has been proved by many cases I have cited and many cases reported in the literature.

Dr. Gillum mentioned having a well-trained organization. Dr. Jackson makes a very strong point of this. Of course in order to do creditable bronchoscopic work, which demands a great deal of skill and is painstaking, a well-trained organization is absolutely essential; and unless such an organization can be obtained, one should not attempt the work at all.

Increasing dangers of a movable foreign body in the trachea becoming impacted in the vocal cords or becoming stuck somewhere in the trachea or larynx are obvious, and one has to be alert. The patient with a foreign body in the trachea should be watched constantly and never left alone. You never can tell what will happen.

The case which Dr. Kearby cited, with the absence of any particular foreign body signs, is particularly interesting because it emphasizes the point I tried to bring out in my paper about the comparatively few signs present in many cases.

I should like to emphasize the fact that close co-operation should be engaged in at all times between the roentgenologist and the bronchoscopist.

IDIOPATHIC OSTEOPSATHYROSIS

JUAN RODRIGUEZ, M.D.

FORT WAYNE

Osteopsathyrosis (Lobstein) and fragilitas osium (Klebs) are the names given to a rare disease of which comparatively little is known. The term osteopsathyrosis is compounded to indicate the pathological condition present, namely a fragility of the bones. Three distinct forms of the disease are recognized: (1) the fetal form or osteogenesis imperfecta; (2) the idiopathic form or osteopsathyrosis; and (3) the adult form. Abnormal brittleness of the bones is also found associated with senility; in various diseases of metabolism as scurvy and rickets; in certain nervous diseases as anterior poliomyelitis, tabes dorsalis and general paresis; and in general intoxication, as phosphorus poisoning. Locally, the fragility may occur in lues, sarcoma or metastatic carcinoma.

We shall confine ourselves to the idiopathic form to which we think belongs the case about to be reported. So rare is the condition that up to the present time less than two hundred cases have been reported. Griffith¹ in 1897 collected sixty-seven cases, but in these he included all cases of osteogenesis imperfecta; Kienboeck² reviewing the literature on the subject from 1888 to 1914, found only thirty-seven cases and at the same time reported two of his own. Ostheimer³ made an extensive review in 1914 and brought to light one hundred and twenty-six cases, but,

like Griffith, he included in his list the fetal form.

Practically all the authors writing on the subject describe the disease under the heading of osteogenesis imperfecta, or under this title mention the fact that the condition may appear after birth. The majority, although stating that the cause of osteopsathyrosis is unknown, agree that heredity and familial influence play a part in its development, especially in those cases associated with a peculiar blue coloring of the sclerotics⁴. Our case, however, had the dark blueness of the scleræ and we failed to elicit any hereditary trait. Others ascribe the disease to hereditary lues, rickets and scurvy; and still others blamed the endocrine system for its causation.

Morbid Anatomy. The pathological lesions in the typical cases appear to vary and are not clearly understood. The best description in the bone changes is given by Nichols. According to



Osteopsathyrosis.—Note extreme bowing of legs with sabre-shaped formation.

his examination the following pathologic conditions were found⁵: "The new trabeculæ are formed by direct metaplasia of persisting cartilage cells into bone, whereas, the normal development of the trabeculæ of bone is formed by apposition of bone, by osteoblasts upon a persisting cartilagenous matrix. In this condition the bone cells are large, oval, not stellate, and show no tendency to form connecting canaliculi. The bones in this condition are very imperfectly formed and would suggest a general diseased condition, the character of which is not perfectly clear. The fibrous matrix is not calcified as in normal bone and the capsules of the cartilage cells do not rupture. The periosteum does not form normal bone, is much thicker than normal, and is incomplete. The Haversian canals are supplemented by large marrow spaces and the trabeculæ in the marrow canal are fewer. Near the epiphyseal lines and in the marrow spaces of the cortex the marrow consists of an edematous, myxomatous connective tissue. The whole process of the development of the bone is checked and is of an abnormal kind. Metaplasia of cartilage is very much greater in this condition than normal,

while apposition of bone is much less. The bones show lesser density and appear thin and atrophied. The medullary cavity seems to be increased at the expense of the cartilage. The epiphyseal lines are sharp, but perhaps less regularly so than normal. Fractures are numerous and appear clearly in the roentgenograph. The bones show increased radiability."

Some of the pathological descriptions are contradictory, probably due to the fact that the observers were dealing with mixed cases. Some claim that there is a deficiency of calcium in the bones, others that there is a lack of osteoblasts, and still others that there is a diminution in periosteal bone formation. Hildebrandt⁶ believes that some injurious substance in the blood stream "prevents the absorption of cartilage and the formation of bone substance".

The thyroid, thymus, hypophysis and the adrenals of patients that have come to autopsy have been subjected to pathological studies and they all have failed to show any change typical to this disease.

Symptoms. Fractures of the long bones varying in number from a few to over a hundred is the most outstanding symptom. It is the frequent, spontaneous fractures, and the deformity following, that brings these patients to the physician. Simple movements like walking, the pulling of a muscle, chewing, lifting of a child from a bed occasion these fractures. They may be complete or of the green-stick variety and are characterized by much less pain than the ordinary fracture. Healing takes place quite readily with abundant callous formation. The extremities, where the fractures are more apt to occur, become markedly deformed. Extreme bowing results and the patient is rendered an invalid. The tibia and femur are often sabre-shaped and flattened laterally as in our case. The joints as a rule remain normal, though cases of progressive ankylosis have been reported. A number of writers have called the attention to the frequency with which a deep blue discoloration of the scleræ occurs. Osteimer found it in six out of thirty-two cases. Schabad⁷ described a hyperphosphaturia, a condition present in our case, and also found a deficient calcium retention. With the exception of the above symptoms and perhaps a secondary anemia, the physical examination of the intrathoracic and abdominal organs is negative.

Roentgen Ray Findings. The multiplicity of fractures is, of course, the outstanding evidence in the plate. The bones appear delicate with marked osteoporosis. The cortex is barely distinguishable from the medulla. The length of the bones is not impaired. The epiphyses, as a rule, are normal. Callous formation is very evident, although the callus appears thinner than the callus of an ordinary fracture.

Differential Diagnosis. Rickets produces bending of the bones, but multiple fractures are infrequent. The epiphyses are enlarged and usually

the rosary and prominent bosses are manifest. Inherited syphilis may produce the fragility, but it also causes epipheseal changes, and some of the stigmata of hereditary lues, together with a possible positive Wassermann, help to differentiate it from osteopsathyrosis. Osteogenesis imperfecta is a distinctly prenatal condition while osteopsathyrosis is post-natal. Osteomalacea is a disease generally of adult life, more common in women and as a rule associated with pregnancy.

Prognosis. The prognosis as to life is favorable. However, the cases that live over thirty years are rare. Occasionally the bones become stronger and if the deformity is not marked the patient is not invalidated.

Treatment. Very little can be said about treatment in this condition. The administration of calcium and phosphorus should be resorted to although in the true idiopathic osteopsathyrosis they



X-RAY OF CASE.

are unavailing. Transplantation of thyroid tissue has been advocated by some investigators and others recommend the use of glandular products. There is no known specific for the disease. The treatment of the fractures is, of course, a surgical problem. Extreme care should be exercised in handling these children to prevent fractures.

The following is the report of our case: H. M., 6, female, came in to the hospital because of ten spontaneous fractures and marked deformity of the lower extremities. The patient's mother gave the following history: She herself had a miscarriage. H. M. is the youngest of five children, the remaining four being in good health. As far as Mrs. M. knows no member of her family nor

of her husband's family have had a similar affliction. H. M. has had none of the children's diseases. She had a mild attack of influenza when she was three. When she was two years old she had a fracture of the middle of the right tibia while walking. She did not complain very much when this happened. After this fracture healed she was able to walk. At three and a half years of age she fell down and obtained three more fractures, one below the right hip. Six weeks after this she fractured the right leg above the knee while sitting down in an automobile. Two years ago she broke her left leg while rising up in bed. Her last fracture was two weeks ago. She has been treated for rickets all this time. Physical examination shows a rather pale, emaciated girl in fairly good humor. The conjunctivæ are of a deep, glistening blue. With the exception of a funnel chest and an abnormal flaring out of the costal angle the physical examination of the trunk is entirely negative. The bones of the upper extremities are frail and soft. No marked deformities are noted in the upper extremities with the exception of a slight bowing. The lower extremities, as the photograph and x-ray show, present extreme bowing, are sabre-shaped and the bones are flattened laterally. No scaphoid scapulæ, Hutchinson teeth, or rachitic rosary are found. Her Wassermann is negative. Blood shows a hemoglobin of 60%, 4,150,000 erythrocytes, 14,200 leucocytes with a differential of 49% neutrophils, 49% small lymphocytes and 2% eosinophiles. Her urine contains no albumin, sugar, or Bence-Jones bodies. Microscopically it is negative except that the heavy sediment obtained is composed of phosphate crystals. The x-ray examination shows no pathology in chest, head or arms. Marked bowing of femora, tibiæ and fibulæ with thinning of the shafts and a diminution of the lime salts. The left femur has a recent transverse fracture in the upper third and an old oblique fracture of the lower third of the right femur. There is some cupping of the epiphyses, especially of the lower end of both tibiæ.

BIBLIOGRAPHY

- (1) Griffith—The Diseases of Infants and Children, 1919 Edition, Volume II, p. 432.
- (2) Quoted by Blaine—*American Journal of Roentgenology*, Volume III, No. 9, Sept., 1916, p. 438.
- (3) *Journal American Medical Association*, 1914, LXIII, p. 1996.
- (4) Holt—Diseases of Infancy and Childhood, 1917, p. 895.
- (5) Quoted by Rotch in *The Roentgen Ray in Pediatrics*, 1910, p. 88.
- (6) Quoted by Osheimer, *Journal American Medical Association*, 1914, LXIII, p. 1996.
- (7) Quoted by Barker in *Monographic Medicine*, Volume IV, p. 72.

DACRYOCYSTORHINOSTOMY*

J. R. GILLUM, M.D.

TERRE HAUTE

Chronic dacryocystitis is the result of obstruction of the lacrimal duct. This statement may

seem rather broad, but such is the opinion of Drs. DeSchweinitz, Fuchs and Theobald. If one but stops to consider, he will see readily that it is impossible to have a long continuing inflammation of the sac while the sac is constantly washed with freely flowing tears; and on the other hand, if there is an obstruction of the duct, the sac becomes a reservoir and the tears and secretion become stagnant and infected with bacteria.

Two things are to be accomplished by the treatment of dacryocystitis: First, the cure of the disease; and second, the cure of the epiphora. Centuries ago destruction of the sac by actual cautery was practiced. This successfully cured the disease, but left the patient with an unsightly scar and an incurable epiphora. This treatment was practiced for a great many years. The cautery was then abandoned and caustics such as silver nitrate, zinc chloride and Vienna paste were used. These were applied through an incision in the skin, a Manfredi's speculum having been inserted to protect the lips of the wound and the surrounding structures. In more recent times the curet has been used to destroy the sac. In the present day cauterization is still done, but with the electro-cautery. In 1781 Wathen in England suggested the use of a canula, made either of gold or silver. This was introduced into the duct and worn constantly to keep the stricture dilated and to furnish drainage.

This treatment was popular for only a short time. It was revived later by Dupuytren, but the success was no better. Some patients wore these canulæ a long time. Theobald reported a case that wore one twenty-five years. It was completely blocked with calcareous material, and, of course, afforded no drainage. After it was seen that canulæ became blocked and would not drain, bougies came into use. The first were introduced through an incision in the sac and changed daily. Later they were introduced through a slit canaliculus.

In the early seventies Bowman began to dilate strictures with probes. The probes were made in different sizes, the largest of which was about two millimeters in diameter. Theobald a few years later, after making some dissections of the duct, decided that the Bowman probes were too small, and he inaugurated the use of very much larger ones. He found by his dissections the diameter of the average duct to be four and one-half millimeters, so he had his largest probe made four millimeters in diameter. It is not likely that these large probes gave better results than the smaller Bowman probes. A small percentage of good results was obtained by the use of either. This percentage, while small, has continued the probe as a fairly popular instrument to the present day.

*Presented before the Section on Ophthalmology and Otolaryngology of the Indiana State Medical Association at the Terre Haute Session, September, 1923.

Schaeffer during the last year disclosed the reason for so many failures. His dissections showed the lining of the bony duct to be sacculated and very irregular, and in some cases the connection between the sac and the duct was linear instead of end to end. In only a very straight duct with a uniform lumen was it possible to probe without doing harm.

Removal of the sac by dissection came into use in the late nineties, and is practiced by most men today. It does away with all pus, mucus and infection, and was first thought through some reflex to cure the epiphora. However, it was found that it was necessary to remove a portion of the lacrimal gland if the epiphora were to be cured.

Since the failure of sac dissection to cure epiphora, attention has been turned to the discovery of some operation that will produce a permanent drainage of tears into the nose. In 1893 Caldwell of New York was first to do an operation of this kind with any degree of success. In 1903 Polyak sounded the duct from below and opened it, using the sound as a guide. In 1904 Strayza, after removing a portion of the inferior turbinate, opened the entire duct and sac and curetted out the sac. In 1912 West of Baltimore and later of Berlin reported forty cases operated by an endonasal dacryocystorhinostomy. In 1913 he had operated successfully over two hundred cases. This was the beginning of a new era in the treatment, and since that time a great many operations have been devised, the majority of which are based on the same principal as West's. The most widely known of these are Halle's, Totti's and Wiener and Sauer's. Any operation is to be recommended that will produce a permanent drainage of tears. Unfortunately, every operation will not do this in every case.

My experience has been with the West operation, and I will take the liberty to describe in detail the technique of the operation as taught by West in 1913.

The eye is cocaineized with four per cent cocaine. The sac is irrigated and a few drops of ten per cent cocaine instilled with a lacrimal syringe. This is allowed to remain while the operative procedure is carried on in the nose. The nasal mucous membrane is massaged well with twenty per cent cocaine, special attention being given to that portion anterior to the middle turbinate, or the area internal to the lacrimal sac. The cocaine is also applied to the septum in the opposite side of the nose. Three applications of cocaine as just described are made at one to two minute intervals. The mucous membrane is then massaged with adrenalin chloride, one to one thousand, and repeated in one to two minutes. This is quite necessary to insure a good anesthesia

and a complete hemostasis. The operation is not done in a sea of blood.

There are two preliminary steps to the operation, a partial submucous resection of the septum and a partial middle turbinectomy. The submucous resection is done for the purpose of obtaining a more direct view of the outer wall of the nose. West thought this so necessary that after performing more than two hundred operations, he did not consider himself expert enough to omit it. The second preliminary step, the removal of the tip of the middle turbinate, is done to prevent adhesions, and is done in all cases that the turbinate is not atrophic.

The dacryocystorhinostomy is done as follows: A quadrilateral piece of mucous membrane much larger than the sac is removed, exposing the bone beneath the sac. To do this, make the first incision three or four millimeters anterior and parallel to the prefrontal ridge. A second incision extending anteriorly from the upper end of the first incision is made on a level with the attachment of the middle turbinate. A third incision parallel with the second is made far enough below to be lower than the sac. The fourth incision is made joining these two, completing the quadrilateral. The second incision carried front to the edge of the bone and then at right angles to the floor of the nose will permit the dissection of a flap of mucous membrane which when turned down will improve the view of the bone to be removed. To locate the sac, West calls attention to the bulging of the floor of the lacrimal fossa into the nose just anterior to the prefrontal ridge. This he named *torcula lacrimalis*. The writer has observed this in only a few cases. He has had no difficulty in exposing the sac by removing the bone about ten millimeters in front of the prefrontal ridge. After the sac is identified, enough bone is removed to expose the entire sac. It is still better to remove bone even beyond the limits of the sac. The failure to do this makes it difficult for the operator to remove a large enough piece of the sac; also a small opening in the bone permits granulation to push the sac together. The scar lining a large opening draws the edge of the sac, holding it open. Making the proper opening in the bone is the key to the success and is the most difficult part of the operation. The bone is thick and dense and no punch forcep is strong enough to remove it. West's gouge is the best instrument, but I believe it can be improved upon.

After the operator is satisfied that the bone is removed well beyond the limits of the sac, a sound is introduced and general pressure made, stretching the sac into the nose. A perpendicular incision is then made external to the middle of the sac. The nasal portion of the sac is grasped with forceps and completely severed. The nose is

packed with sterile gauze for twenty-four hours. The after care is simply syringing the nose with boric solution. Sounding should not be done. If there is not free drainage of tears, the opening in the bone should be enlarged and more sac removed. The operation done by West requires from ten to fifteen minutes; at least an hour when done by the writer. There is very little pain.

Indications for operation are as follows: Epiphora due to stricture below the sac, dacryocystitis, dacryoblenorrhoea, phlegmon and fistula.

Danger of infection of the orbit is slight if the bone is carefully removed because the lacrimal fossa is anterior. Infections of the eye ball may be a contraindication on account of the chance of failure to carry out the proper technique at the first attempt. The Meller operation, no doubt, would be a safer thing to do.

In closing, I would like to report briefly the results of eleven sacs operated. These patients have been kept under observation and have been given the following test once or twice a year for drainage. A cotton pledget is placed in the nose and fluorescein dropped in the eye. After a few minutes the cotton is removed and if found stained, drainage is considered free. All of these patients have given repeated positive tests, and all have been tested during the past year. The length of time since operation in each case is as follows: Nine and one-half years; nine years, four months; nine years; six years, one month; three and one-half years; two and one-half years; two years; one year, ten months; one year, ten months; one year, two months; and three months. All of these patients had chronic suppurative sacs, and all had had one or more attacks of phlegmonous dacryocystitis. Two patients had fistulae which healed in forty-eight hours. None of these patients have pus or mucus in the sac and there is no crusting or granulation in the nose.

The following conclusions are drawn: That it is possible to cure with a dacryocystorhinostomy not only dacryocystitis but the epiphora; that some means better than the present should be devised to enable the removal of the bone more easily; that in cases of corneal infection, it is safer to do a sac resection.

DISCUSSION

DR. J. P. WORRELL (Terre Haute): I think it has been demonstrated to our satisfaction that it is possible to establish drainage between the conjunctival sac and the nose; its advisability is another question.

As to epiphora, we are all familiar with cases of absolute atresia of the puncta in which the tears do not escape, and yet in which the patient is ignorant of having any trouble at all. As a matter of fact, I think that with a normal conjunctiva where there is no heightened sensibility

or where there are no reflexes from refractive error, evaporation almost takes care of lachrymal secretion. You find it difficult to get an admission from patients that they have any epiphora, and yet with the condition of atresia of the puncta present the conditions exist that necessarily presume the presence of epiphora. Epiphora therefore may be negligible, but when you add a septic area you have quite another picture, that of lachrymal obstruction with a purulent sac.

The question now is how to eliminate that purulent area—whether by free drainage into the nose, by removal or obliteration of the sac. In the latter the septic area is removed; in the former there is drainage, but an area that may become septic because of its continuity with parts that are prolific in septic elements is maintained. Furthermore, drainage that depends upon gravity for its efficiency will of itself fail to do away entirely with the epiphora. Hence I am not ready to line myself up with those who advocate this operation.

My personal experience is that in destruction of the sac and elimination of this source of sepsis my patients have found themselves very comfortable. All contributing causes of irritation should be looked after. Give attention to refraction and all conditions likely to cause reflex irritation, thus causing an increased flow of tears.

I think the prime thought in the whole subject is the jeopardy in which the cornea is placed.

DR. O. T. ALLEN (Terre Haute): I think the doctor's idea of resecting a portion of the nasal septum is a distinct advance in this line of surgery. I have always done the resection of the sac, and in my experience it has been very satisfactory. Usually the epiphora is not noticeable to the patient, after the first six months.

In a male patient who is employed out of doors all times of the year, I should think it would be better to do this intra-nasal operation. Outside of that, I would favor the resection of the sac.

When we consider that the pathology usually starts in the duct, I should think there would be instances where the pathology was sufficient to interfere with the drainage of tears even after this operation. But I believe there are certain selective cases on which I shall do that operation.

DR. D. O. KEARBY (Indianapolis): During the last three or four years we have all listened to more or less discussion of papers on this operation. I have nothing to offer that is constructive. The papers that I have listened to have been written by ear, nose and throat men, arguing that it is an operation, preferable to removal of the sac as practiced by ophthalmic surgeons. The end results, that is cure of the patient, should determine which is preferable. It is wholly up to men

who do eye work to determine definitely whether this is the operation of choice in these cases.

DR. C. NORMAN HOWARD (Warsaw): This is a subject in which, doubtless, we all have our troubles.

There is one point: It seems to be a choice of evils—whether to take out the entire sac and quit, or to make a partial excision with an extra channel into the nose. By the former method infection is eliminated, but it deprives the tears of their natural outlet. By the second method, there is a drainage canal, but there is a possibility of infection from the remaining part of the sac and also from the nose.

I believe that taking out the entire sac removes the irritation, thereby reducing the epiphora to a minimum. Personally, just the thorough removal of the sac has been my method of taking care of chronic dacrocystitis that did not yield to other treatment.

DR. W. E. STEWART (Terre Haute): I have seen one or two of these operations performed, and I would like to ask the age of the patient the doctor would select.

I would like to hear what Dr. Gillum has to say on that point. Most operators seem to think the operation is not best in the very young or very old.

DR. J. R. GILLUM (closing): Dr. Worrell spoke of patients having closed puncta without epiphora. That is quite possible. A patient's lacrimal gland may not act at all. Of course, that is a pathological condition. In some cases patients may have a patulous duct and still have epiphora, if the duct is large enough and has not sufficient carrying capacity to carry off the excessive amount of tears secreted by the lacrimal gland.

As far as sac resection is concerned, the fact cannot be disputed that resections do benefit the patients from the standpoint of wiping the eyes. It gets rid of the pus and mucus, and in that way benefits the patient.

There is always epiphora following sac resection unless the lacrimal gland is very inactive. I have resected six or seven sacs, and every one of my patients has epiphora.

Dr. Kearby brought out a point that has kept up a great deal of discussion. It is one reason the operation has not received more credit. The operation is done by the rhinologist. Diseases of the sac have always been taken care of by the ophthalmologist. The ophthalmologists themselves prefer to operate the sacs; while I think that the ophthalmologist will give way to the rhinologist.

As to Dr. Howard's discussion of infection from within traveling up the duct, this is impossible as the duct is closed.

Dr. Stewart inquired the age of the patient I would operate on. The youngest patient I operated on was a boy ten years old. The operation was done under a local anesthetic. I do not believe the operation could be done under a general anesthetic because the hemostasis has to be complete, and complete hemostasis cannot be obtained under a general anesthetic. Old age would not interfere with the operation unless the patient is extremely feeble and expected to live but a very few years.

SOME OBSERVATIONS ON THE CZERNY-KLEINSCHMIDT BUTTER-FLOUR MIXTURE

L. J. WISCH, M.D.
CHICAGO

In 1918 Czerny and Kleinschmidt produced a butter-flour mixture to be used in difficult feeding cases. Since its appearance many observations have been made on its use, with promising results, but not without some contraindications. Its mode of preparation is as follows: "Seven grams of butter are heated over a gentle flame until the odor of all the volatile fatty acids have disappeared, then 7 grams of flour are added slowly and allowed to boil until the mixture becomes thin and somewhat brownish; to this is added 100 cc. of boiled water to which 5 grams of cane sugar has been added, and the entire mixture brought to a boil. Strain through a very fine sieve and place in a cool place until ready to use."

From one to three months, or in prematures, one-third milk may be added; later the butter-flour mixture may constitute two-fifths of the entire mixture.

The following report covers six cases taken at random from the author's personal series to bring out the more important points:

Case 1. Baby W., eleven months old, presenting unmistakable stigmata of rickets and the symptom snuffles since birth, who was on a cow's milk mixture, flourball and dextri-maltose, had been stationary for two consecutive months. Vonpirquet and Wassermann tests negative. Was placed on a formula of cow's milk, dextri-maltose and butter-flour mixture. The first two weeks showed no change excepting a refusal to take its full quota per feeding. Because of the suspicious family history of lues mercury and chalk introduced, and in one week the babe began gaining, and up to the present time is continuing its gain without interruption.

Case 2. Baby G., a referred case three months old, when first seen had dropped below its birth weight and presented a typical picture of marasmus. Many varieties of formulæ having failed the infant immediately was placed on albumen milk, with a slight but unsatisfactory gain. The butter-flour mixture was introduced, resulting in a thirteen-ounce gain in four days. Since that

time the infant has been gaining far above its normal expectation and at eight months weighs seventeen pounds and has two lower centrals.

Case 3. A premature male infant weighing four pounds who was vomiting on every type of artificial food attempted except breast milk, which was not available. X-ray showed no signs of pyloric stenosis or gastro-enterospasm and no improvement on atropine and thick cereal feedings, was placed on a weak butter-flour mixture; handled it nicely, practically ceased vomiting and made gains not unlike a normal breast-fed baby.

Case 4. A Greek female infant, having diarrhea of 10-12 green liquid mucus stools a day on an ordinary formula of cow's milk, water and dextri-maltose, failed to respond to the ordinary antidiarrheal treatment, was placed on a butter-flour mixture with results that soon proved disastrous and necessitated its immediate withdrawal as early atrophy was threatening. In this case protein milk seemed to be life saving, and on it this baby is still thriving satisfactorily.

Case 5. A normal five-months infant whose breast supply suddenly failed and artificial feeding became necessary. As a control case butter-flour mixture feedings were instituted with ordinary cow's milk. The gains always exceeded those it had made on its breast feedings, the stools remaining yellow and of good consistency, and no vomiting appeared. At present this infant is still thriving on butter-flour mixture.

Case 6 presented that symptom complex known as Celiac disease. This boy of sixteen months weighs approximately sixteen pounds, always has been a difficult feeder since birth. Diarrhea alternating with constipation and vomiting at the least provocation. His appetite always has been poor, his gains oscillating from time to time. Cow's milk, albumen milk, dryco, thick cereal feedings all have been tried with no beneficial results. The butter-flour mixture was tried here with very untoward results, a diarrhea developed which lasted almost a month with considerable loss in weight, which was finally stayed by a return to albumen milk. These apparently are the chronic indigestion cases with fat intolerance.

Conclusions on so few cases are not absolutely certain, but probabilities may be drawn, and the following contraindications may be recorded:

1. Butter-flour mixture should not be used in cases in which the malnutrition is due to some specific wasting disease as tuberculosis or syphilis.
2. It is contraindicated in acute nutritional disturbances, such as disturbed metabolic balance, or acute dyspepsia.
3. It usually is disastrous in chronic indigestion with fat intolerance.
4. It finds its useful sphere in premature infants of enfeebled nutrition, marasmus, and chronic dyspepsia.

A PLEA FOR MATERIA MEDICA*

F. G. JACKSON, M.D.

MUNCIE

Looking over the medical writings of the men who were the teachers and authorities forty years ago, one marvels at the certainty with which they gave the indications and uses of remedies, and the time and manner of administering them to the sick.

Laboratories for experimentation on animals to determine the effects of organic and inorganic medicines were well organized, and therapy had its brilliant experimenters and investigators no less renowned than internal medicine and surgery. At that time three years of study under a preceptor was required before one could matriculate in a medical school. Many students also made some working arrangement with local drug-stores whereby they could gain intimate knowledge of the appearance, odor, color and texture of the crude drug. Daily attendance in the preceptors' offices supplemented college instruction and gave an excellent foundation for future therapeutic work.

At the time of which I write, drugs came in tinctures, fluid extracts, infusions and powders. They were administered in extemporaneous mixtures of syrups, elixirs, solutions, capsules and a few in pill form. Then came a period of proprietary preparations with special registered names for well-known medicines. These special formulas were accompanied by literature of the most alluring kind.

Later came tablet medicines and with them came the ubiquitous salesman who hypnotized one into buying anything, after he had told what it was good for.

The manufacturing pharmacist seemingly has little regard for the United States Dispensatory and will offer any official formula in half-strength, double-strength or standard as preferred. He appears to know little of incompatibles or synergists, and will make combinations of drugs that would make an old-time druggist turn over in his grave. The talk of the salesman about his merchandise is only surpassed by the literature that accompanies it. Many of us have allowed our text books to become dusty while reading of the magic virtues of the special formulas. And yet the manufacturing chemist has done a great work in perfecting pleasing and palatable preparations of medicine, in replacing the nauseating, unpalatable and often disgusting potions that were formerly administered to the sick. He has placed within reach of the profession, in a pleasant form, every known drug of medicinal value. But it remains for the physician to make discriminating choice of his remedies, in accordance with sound therapeutics, rather than accept the dictum of the manufacturer.

On entering practice the young doctor had as

*Presented before the Delaware-Blackford Medical Society, February, 1924.

his daily companions Wood, Bartholow, Hare, Pepper or some other of the eminent therapeutists of that day. His medical armamentarium was large. His knowledge of the action and uses of the drugs was usually accurate, and he could give a reason for their administration in a given case. He knew when to give belladonna and when to give hyoscyamus, each a most valuable remedy when indicated. Though similar if not identical in chemical composition and physiological action, he very thoroughly understood the marked difference in their respective therapeutic indications. His understanding of the action and uses of digitalis was based on rational principles and he did not give it indiscriminately in all cases of heart disease. It was believed that digitalis had no power to prevent deposition of fibrinous material or to change in any way the course of a pneumonia. While it was a proper remedy for the support of a flagging heart, it was in no sense a specific in pneumonia.

In chronic digestive disturbances of whatever cause, *nux vomica* is most valuable. The tincture of *nux* before meals will promote the flow of the mouth, stomach and intestinal secretions, and favorably affect the general glandular secretions and improve the digestive processes.

The ammonium, potassium and sodium salts were given with discrimination and confidence. The ammonium group is classified as stimulant expectorants. We are all familiar with the aromatic spirits of ammonia for the prompt stimulation of a weak heart, but it is eliminated quickly and its action can be sustained only by frequent administration. For a sustained action, as in pneumonia, the ammonium chloride should be exhibited, as its action is more prolonged and elimination is less rapid. I know of no stimulant expectorant that is more satisfactory than ammonium carbonate in broncho-pneumonia of infants and children. Ammoniated tincture of guaiac has the most happy effect in the treatment of tonsillitis. Given in hot water or hot milk its action is certain and pleasing.

Generally speaking sodium and potassium salts are not identical in action. Sodium salts are indicated in gastro-intestinal affections, potassium salts for the urinary tract. Potassium bicarbonate or acetate, given on an empty stomach, increases the acidity of the urine. Given on a full stomach it will alkalize the urine. Often a very useful thing to know.

The old Seidlitz powder has been almost lost sight of, yet it is one of the most pleasant and effective aperients that we have.

The phosphate of soda is a most efficient agent for the treatment of pathological gall-bladder. In the absence of gallstones a protracted course of phosphate of soda will produce a cure of the diseased mucosa of gallbladder, ducts and duodenum. It is probably as effective as drainage of the gallbladder through the duodenum. It is more

lasting, and less repugnant to the patient. Phosphate of soda in small doses is very effective in the treatment of poorly nourished, ill-conditioned children with pasty or whitish stools. In the disappearance of malaria from this part of the country we have lost sight of many of the very valuable merits of the cinchona salts. We all know of their efficacy in malaria. But we may have forgotten that the preparations of cinchona are among our very best stomachic tonics. It promotes appetite and the digestive powers and increases the flow of the gastric juice. In this way it also acts as a most valuable restorative in debility and malnutrition. These salts can be advantageously added to any general restorative tonic.

Quinine is an excellent febrifuge and conservator of the heart in all continued fevers. It is a most efficient remedy in cases of weak or failing heart and when digitalis does not agree, it is a very good second.

No remedy may be given with more satisfaction in proper cases than the oil of turpentine. A few drops will quickly relieve that most distressing condition, flatulence. The dry glazed tongue and the tympanitic abdomen of typhoid fever are best treated with turpentine. I know of no remedy as effective. Strangury must be guarded against and treatment not too prolonged.

I have only mentioned a few of the valuable remedies that have been tried and approved by the fathers in medicine. The United States Dispensatory is rarely spoken of now, but it is a very mine of valuable facts of the greatest value to the internist. Many of our old remedies have been superseded by new and more effective treatment, but many of our most valuable medicines have fallen into disuse through ignorance of their virtues.

Be not deceived. The family physician is not passing, and he will never pass. His place cannot be filled by any specialist or any group of specialists. But there is no room in this great profession for the medical nihilist. One who has gone through his years of study and practice without acquiring a firm belief in the efficacy of internal medicine, most certainly proclaims his ignorance. Let him join his drugless colleagues, chiro, osteo and scientist.

I wish here to express my entire sympathy and belief in the great advances now being made in the treatment of the sick. These young men with keen intellects and trained minds are attacking these age-old problems with marvelous effect. They shall have the full confidence and loyal support of the men who have already made their fight and have had their day. If we can by counsel or advice assist them in this newer work we shall esteem it a privilege. We wish to remember what is good in the old and to learn what is best in the new.

THE JOURNAL of the

Indiana State Medical Association

Devoted to the Interests of the Medical Profession of Indiana

ALBERT E. BULSON, JR., B.S., M.D., F.A.C.S.
Editor and Manager

Office of Publication, 406 W. Berry St., Fort Wayne, Ind.

APRIL, 1924

EDITORIALS

ACTIVITIES OF THE STATE BOARD OF HEALTH

We always have maintained that the medical profession should know something about the accomplishments of various enterprises under State control that have to do with the health of the people of the State, and accordingly we have been trying to get for publication some reports from the State Board of Health, the State Board of Medical Registration and Examination, the medical department of the University, and some other enterprises of less prominence. As our readers may have noted, we have been publishing some reports and news items concerning these enterprises and quite recently have received a letter from the secretary of the State Board of Health which throws some light upon the work that is being done by the Board. As will be noted by the report, which we print as presented, the State Board of Health is attempting to cover a very large field of activities and undoubtedly the results are well worthy of the efforts put forth. If we have any one criticism to make it is that all of the work that is being done does not receive appropriate attention in the daily press which, in reality, is the greatest educational force that can be secured for taking any message to the people. Dr. King maintains that practically all of the work done by the State Board of Health is educational and has for its purpose the teaching of the public concerning health, how to care for it, and how to prevent unnecessary sickness. As a brief resume' of what is being done he says:

1. Every department and vision head of the State Board of Health takes advantage of every possible opportunity to talk to meetings of the public and to tell the story of health conservation and disease prevention. The secretary averages at least three public addresses per week throughout the year, the assistant secretary almost as many.

Dr. McKane, at the head of the Tuberculosis Division, prior to October 1st of last year covered practically every county in Indiana, holding meetings in rural schoolhouses, as well as in the cities and towns, giving addresses on the prevention of tuberculosis, and carried with him a public health exhibit, moving picture films, moving picture lantern and operator, and with a truck so equipped that moving pictures could be given in rural school buildings with the electric current generated by the motor of the truck. In connection with this educational campaign, educational circulars on the care and prevention of tuberculosis were distributed by the hundreds of thousands.

Since October 1st Dr. McKane has been head of the newly organized division of Communicable Diseases, with Dr. Oilar in that division as epidemiologist, and both these men not only take advantage of every opportunity they can, but are constantly making opportunities for talking before public meetings on the prevention of communicable diseases, and particularly at the present time upon the prevention of diphtheria. Dr. Oilar in his work as epidemiologist goes on the field wherever there is a serious outbreak of any communicable disease and immediately seeks to give the fullest co-operation to local health officers and physicians in controlling the outbreak, and takes advantage of every possible opportunity to teach the people of that community as to the facts of the particular disease.

Dr. Schweitzer, director of the Division of Maternity and Infancy Hygiene, has had for the past year four different staffs in the field devoting all their time to education of the public in the care of infants and expectant mothers. Hundreds of thousands of educational circulars on baby care and maternity care have been given to the public by these field workers; thousands of addresses have been given; each field staff carries an educational exhibit with charts, moving pictures, lantern, and operator, and these exhibits and moving pictures are shown at evening meetings in rural schoolhouses, as well as in cities and towns, so that hundreds of thousands of people of the State of Indiana have come under this education.

Mr. Wert, director of the Housing Division, has been before chambers of commerce, noon luncheon clubs, city councils, and other organizations in almost every section in Indiana, to discuss the relation of housing to public health, in addition to his personal contacts with citizens all over the State. This division also has educational circulars that are distributed to the public.

Miss Gaskill, director of the Public Health Nursing Division, with her assistant, Miss Horn, while devoting particular attention to the work of public health nurses, takes every opportunity that can be had to address women's organizations, groups of women, nursing organizations, etc. And this division not only has educational circulars that are distributed free, but is publishing a bulletin of health information that goes to nurses and those interested in nursing all over the State.

Mr. Condrey, who is in charge of the work connected with school hygiene and school sanitation, meets with township trustees, city school boards, county, city and town superintendents, teachers, architects, engineers, and others, both in the office and out over the State, and in all these contacts is continually preaching and teaching the gospel of sanitation and hygiene as it pertains to the sanitary care and maintenance of school buildings. In this connection I might state also that every one connected with the State Board of Health in any way takes advantage of every opportunity to urge medical supervision of school children, and the co-operation of teachers, parents, and physicians in the medical care and medical supervision of school children.

Mr. Miller, director of our pure food and drug laboratory, and who is also pure food and drug commissioner of the State, takes advantage of every opportunity to go before the public in group meetings and otherwise, and urge the value of pure and wholesome food, cleanliness and sanitation in food handling, and seeks in every possible way to teach the public as to the value and importance of cleanliness in the handling and preparation of foods. In his department there are five inspectors of dairies, groceries, restaurants, bakeries, confectioneries, in fact all food producing, food handling and food distributing establishments, seeking to improve sanitary standards of our foods all the time and prosecuting dealers who persistently refuse or neglect to comply with the fundamental requirements of the state food and drug law.

Mr. Geupel, in charge of our water and sewage department, is a trained engineer, much of whose work is in the field where he is in contact with city councils, health departments, water work officials, both municipal and private, industries, in fact, wherever there are water supplies and wherever there is a problem of sewage disposal. Mr. Geupel is constantly seeking to teach the public the importance of pure, wholesome water, and the importance of sanitary disposal of sewage and domestic and industrial wastes. Both the pure food and drug division and water and sewage division have educational circulars, which are distributed by the thousands.

Dr. J. G. Royse, director of the Venereal Disease Division, and assistant secretary of the Board, is before groups of business men, women's clubs, teachers, parent-teacher associations, on the average of two or three times a week telling the story of the venereal diseases and trying to teach the public as to the menace of this disease. This division has moving picture films and lantern, a stereomograph, keeping fit exhibits for boys, keeping fit exhibits for girls, and these exhibits are constantly on display in schools, in Y. M. C. A.'s, both colored and white, and in other places throughout the State. In addition this division has educational circulars, which are distributed in connection with all these addresses and exhibits, and which are distributed also by thousands upon request of teachers, school superintendents, Y. M. C. A.'s, ministers, and others throughout the State. In fact all our educational circulars are requested by teachers, school superintendents, Y. M. C. A.'s, ministers, heads of health committees, of women's clubs, and by thousands of citizens of the State, so that aside from the distribution of literature in connection with public addresses, there are thousands of educational circulars that go out constantly upon request and are distributed by local people through local groups and organizations.

In the Division of Venereal Diseases, Mr. Rail, who is state investigator, is constantly engaged in seeking out sources of infection in co-operation with local investigators in connection with venereal disease clinics, and in co-operation with city, county, and town health officers throughout the State, and in every case the purpose of

such investigation is to get the person infected with either syphilis or gonorrhea under the care of a competent physician for treatment, or if the case is indigent and unable to pay for treatment, to get the case under clinic treatment, if a clinic is reasonably near. In this connection we also furnish salvarsan to local physicians for cases who are unable to pay, and while this has not always been satisfactory we are glad to co-operate with physicians in this way.

2. Every department head and subordinate who comes in contact with the public in the many and varied ways constantly urges and endeavors to teach the public to consult a physician in any and all matters pertaining to the treatment of disease, or as to advice concerning physical welfare. I venture to say there is no other group in the State of Indiana, the organized medical societies not excepted, who are so constantly and persistently and intelligently engaged in an effort to have the public understand that medical matters should be referred only to competent and trained medical men. And this applies not only to the contracts with the public above referred to, but is carried out in hundreds and thousands and literally hundreds of thousands of letters that go out from the various departments of the State Board of Health to the people of Indiana day by day in answer to inquiries involving "health and how to care for it."

3. The State Board of Health is rated 100% in membership in the county and state medical society, that is so far as heads of divisions and departments are concerned. And these heads of departments and divisions with the secretary and assistant secretary seek every opportunity possible to meet with, and to discuss with medical societies matters pertaining to public health education. We are constantly referring people to physicians, not only by letter but by personal contact here at the office. You probably have no idea of the number of inquiries coming

by letter from over the State and coming in the form of personal interviews from people in and near Indianapolis as to competent physicians and specialists. In every case we seek to refer them to men of ability and experience in the communities from which the inquiries come.

4. Every day news items of an educational nature are given to the local press and to correspondence for the Associated Press, and the United Press, and hundreds

The Position of the Indiana State Medical Association on matters pertaining to legislation:

- 1st. That all persons, classes, sects or cults, who pretend to recognize and treat human disease, shall stand equal before the law.
- 2nd. That one fundamental educational standard be required of all who pretend to recognize and treat human disease, and all should submit to the same license requirements.
- 3rd. That ONE BOARD pass on the fundamental and professional qualifications of all persons seeking a license to permit them to offer their services to the public as one skilled in the recognition and treatment of human disease.
- 4th. That the present law be so amended, that it will prohibit any person engaging in practice, under any name whatsoever, which has for its purpose the recognition and treatment of human disease, until these principles have been complied with.
- 5th. That nothing shall be written into the law, which could in any way be construed as interfering with any method of treatment, which any person who had complied with these principles, might wish to employ.

Write to

F. W. CREGOR,

Chairman Committee Public Policy and
Legislation,

Hume-Mansur Bldg., Indianapolis, Ind.

and thousands of these newspaper educational items are published in the course of a year in the press of Indiana. This is not an idle statement, because our clipping service brings to my desk daily clippings from newspapers all over Indiana. We have a list of 105 newspapers in the State who will and who do publish everything we give them, and we give them something almost every day.

5. The secretary lectures several times each year before the Hygiene Class of Indiana University, consisting of approximately 800 students. Mr. Miller, Mr. Geupel, and Dr. Schweitzer also lecture before the class. A few weeks ago I showed the Men's Lecture Film on venereal diseases, and gave a talk in connection with the showing before more than 1,400 boys at Purdue University. Every division head lectures before the medical students of Indiana University, and before the nurses at the Robert W. Long Hospital. We also give a series of lectures to the students of the Indiana Dental College. Many of these lectures are illustrated and always educational circulars are gotten into the hands of all these students. In addition we send our moving picture films out to local meetings where local physicians and others are to address such meetings. For instance, a dentist at North Judson has put on a series of talks on public health this winter, and has shown four or five of our films and a whole series of slides on various health subjects. The secretary averages from one to three written lectures every day in response to requests from physicians and others who have been asked to give a talk on some particular phase of public health work, and who write to the secretary of the State Board of Health for assistance in preparing the talk. We send out books from our library to men who are preparing talks, and I happen to know that three of our best works are out on such a mission at this time.

There are many other phases of educational work constantly being carried on and carried out by the State Board of Health, the details of which cannot be given, but suffice it to say that every department head and every employee of the State Board of Health is an apostle of public health, and that the State Board of Health in all its departments stands as a bulwark against quacks, charlatans, and pretenders. It may be true that little of this educational work comes directly in contact with physicians, but this is not altogether the fault of the State Board of Health. We publish, as you know, a monthly bulletin that goes to more than 3,000 people, mostly in Indiana, on our regular mailing list, and in which we aim to give medical information that is of value not only to the public, but, as we think, is of value to doctors. As an experiment we sent our December *Bulletin* to every doctor in the State of Indiana, requiring more than 7,000 copies. On the first page of this bulletin we asked doctors to read the bulletin and if they felt they would like to have the bulletin come regularly to notify us and we would put them on our mailing list. Up to the present time we have had one request from a doctor to have the bulletin mailed regularly. It is true that we do not broadcast public health information as is being done by Dr. Nichol of New York State, but this method of distributing information is very much of an experiment, and we are watching the results.

We will be glad to mail the State Board of Health literature to physicians and will be glad to have physicians keep this literature on the table in their waiting rooms. I believe that an up-to-date circular on diphtheria or typhoid fever would prove as interesting to the average patient as a six months' old number of *Collier's*. We have tried a number of times by personal letter to all the physicians of the State, and numerous times in personal contact with medical societies, to interest doctors in having this literature on hand for the benefit of their patients, but somehow we have failed to reach the objective.

RECOGNITION OF DIPLOMA MILLS

It required a reporter on a lay newspaper to uncover evidence indicating that the credentials issued by low-grade medical schools have been recognized in some eastern states and that, in consequence, the people in those states have suffered even to the extent of unnecessary deaths through the ministrations of these poorly educated and illy-trained men who presumably were qualified because licensed under the laws governing the practice of medicine.

Following the many exposures that have been made, inquiries began to turn up in all the States, Indiana included, concerning the extent to which these diploma mills have succeeded in having their students or graduates legally recognized. An inquiry directed to the Indiana State Board of Medical Registration and Examination resulted in securing the following information:

Barnes Medical College, St. Louis, Missouri: The Board recognized graduates of this institution up to and including 1908, since which time applicants have been refused licensure in Indiana because of lack of sufficient preliminary credits and reputation of the school of graduation.

St. Louis College of Physicians and Surgeons, St. Louis, Missouri: The Board recognized graduates of this institution up to and including the year 1909. This school was rated class C in 1912 and dropped from the recognized list of Indiana that year.

National University of Arts and Sciences, Medical Dept., St. Louis, Missouri: This institution was a merger of Barnes, St. Louis College of Physicians and Surgeons, and the American Medical College of St. Louis, the merger occurring in 1915. In 1916 the St. Louis College of Physicians and Surgeons withdrew from the merger. The National University of Arts and Sciences, Medical Department, went out of existence in 1918. Indiana never recognized this medical school and applicants have been refused licensure in Indiana.

Kansas City University of Physicians and Surgeons, Kansas City, Missouri: This institution never has been recognized by Indiana, and only one application for licensure has been recorded.

Kansas City College of Medicine and Surgery, Eclectic, Kansas City, Missouri: A low-grade nominally eclectic institute which is reported as not recognized by the licensing boards of twenty-four states, Indiana included. No graduates of this institution have made application for licensure in Indiana.

Middlesex College of Physicians and Surgeons, Boston, Massachusetts: This is another low-grade school never recognized by Indiana. Only one applicant, and he was refused recognition in 1920.

Thus it will be seen that Indiana is free from the graduates of inferior medical schools.

DEDUCTABLE FEATURES IN INCOME TAX REPORTS

Members of the medical profession have complained bitterly concerning the ruling of the United States Revenue Department that the actual expenses incidental to attendance at medical meetings and in doing postgraduate work cannot be considered a deductible feature when figuring income tax, and all efforts to secure a repeal of this decision have been without avail. In revising the income tax law it was expected that the medical profession would secure some relief from this unjust and discriminating ruling, but at this writing an income tax bill already has passed the United States House of Representatives without the desired relief, and the matter is now up before the United States Senate.

Every physician in the United States has been asked to write his senators and representatives to work and vote for a bill that will make the expenses in attendance upon medical societies and in doing postgraduate work a deductible feature in the physician's income tax report, and to work for a bill that will admit of no other interpretation on the part of the United States Internal Revenue Department. The editor of *THE JOURNAL* wrote to the Indiana senator a letter as follows:

Honorable James E. Watson,
United States Senate,
Washington, D. C.
My Dear Senator Watson:

The medical profession has been attempting to secure a reversal of the stand taken by the United States Internal Revenue Department that expenses in attending medical society meetings and in doing postgraduate work can not be deducted in a physician's income tax report. So far success has not followed these efforts and I notice that the bill recently passed by the United States House of Representatives does not afford the desired relief for either past or future.

It is the rankest kind of injustice to impose upon the medical profession in this way. In the first place a physician's income, small as it usually is, is *earned* income and acquired by constant devotion to his profession, much of which devotion and service is never compensated for in dollars and cents. In order that he may keep abreast of the times and be better prepared to care for his patients he is obliged to spend money constantly in attendance at medical societies and clinics, and that is just as much an *upkeep* expense as anything else *necessary* for the conduct of business. Not only is it a financial drain upon him but while he is doing it his professional income stops. It is a part of the expense of carrying on professional work and should be so considered by the Revenue Department and made a deductible feature in tax income reports.

It is bad enough for the government to penalize every one having *earned* incomes but it is the rankest kind of injustice to discriminate against members of the medical profession when making allowances for necessary expense in the conduct of professional work. The physicians in Indiana, irrespective of party lines, resent this attitude bitterly and feel that we have a right to call upon our United States senators and representatives to make an endeavor to right the wrong.

May we count upon your support?

Sincerely yours,

ALBERT E. BULSON, JR.

To this letter Senator James E. Watson, of Indiana, made the following reply:

Dr. Albert E. Bulson, Jr.,
406 West Berry Street,
Fort Wayne, Indiana.

My Dear Dr. Bulson:

I am in thorough accord with the views expressed in your letter of March 27th.

In my judgment, this special tax should not be levied against the physician any more than it should be against the architect or lawyer.

Senator McCormick, of Illinois, has presented amendments to the Tax Bill to bring about the change you suggest. I believe they are right and proper, and I will vote for them.

Sincerely yours,

JAMES E. WATSON.

It may be noted that both Senator Watson of

Indiana, and Senator McCormick of Illinois, are members of the Finance Committee of the United States Senate and it is hoped that their influence may have great weight not only with the Committee but with a majority of the members of the United States Senate in securing the relief that the medical profession asks. However, it should be remembered that any new income tax bill or any contemplated modifications of the existing law must have the approval of the United States House of Representatives. Therefore, the thing for every doctor in Indiana to do is to write his representative in Washington complaining about the present unfair ruling on the part of the Department of the Interior and request that the medical profession be given relief through suitable provisions in the new income tax law that will be enacted. In writing the representatives it may be well to call attention to the amendments that Senator McCormick has presented, and mention that Senator Watson is supporting them, and ask that the Indiana representatives do likewise when the matter comes before them for action.

THE PROPHYLACTIC USE OF DIPHTHERIA ANTITOXIN

Although the value of antitoxin in the management of diphtheria is no longer debated and its use has come to be almost universal in the treatment of the disease, medical opinion seems to be divided as to the desirability of employing the antitoxin as an immunizing agent when persons are exposed through contact with infected patients. There is always some risk of death from the injection of horse serum, or its products, into man, so that the clinician will naturally weigh this possibility before subjecting a healthy person to whatever danger may be involved in the immunizing procedure. The best statistical record of deaths from antitoxin shows one death among approximately 75,000 persons injected. As has recently been pointed out,¹ the alternative that is advocated in lieu of prophylactic antitoxin is a careful examination of the contacts each day by a physician, and the use of therapeutic doses of antitoxin at the earliest indication of clinical infection. While this cannot be expected to diminish the risk of infection, it should lessen the risk of death. Such attempts to avert a calamity are not free from serious difficulties, not the least of which are the uncertainties of early diagnosis and the continued careful surveillance demanded. Added to this, furthermore, is the risk of death from diphtheria if it should be contracted by an exposed person. From a practical standpoint, the statistics recently gathered at Baltimore by Doull and Sandidge¹ are quite significant. According to their records of more than 500 consecutive cases of diphtheria, 10 per cent of the

1. Doull, J. A., and Sandidge, R. P.: Is the Prophylactic Use of Diphtheria Antitoxin Justified? *Pub. Health Rep.* 39: 283 (Feb. 15) 1924.

family contacts of 10 years and under who were not given prophylactic antitoxin subsequently developed diphtheria, mostly within thirty days. Of the children in the same group who were given prophylactic antitoxin, only 1.2 per cent were attacked. This experience, the authors state, is in agreement with the experience of other writers with regard to the low secondary attack rates among immunized children and the very much higher rates among children not so treated. These findings demand serious consideration in the debate as to whether dependence should be placed solely on frequent examinations of the throats of contacts and the administration of sufficient doses of antitoxin therapeutically in case of developing diphtheria rather than on the prophylactic use of the antitoxin when infection is threatened by environmental circumstances. — *Jour. A. M. A.*, March 29, 1924.

NO REDUCTION IN SPECIAL TAXES ON PHYSICIANS

The proposed revision of the Revenue Act of 1921 was passed by the House of Representatives, February 29. No reduction was made in the war tax imposed under the Harrison Narcotic Act, nor were physicians given the right to deduct in the computation of their income taxes traveling expenses incident to attendance at meetings of medical organizations or expenses of postgraduate study. Unless the Senate acts favorably, the profession will be compelled to continue to pay annually, in time of peace, approximately a quarter-million dollars war tax, over and above the amount that would be collected under the normal tax of one dollar a year. The profession will be compelled, too, to resort to possibly expensive and long-drawn-out litigation to defend its rights under the income tax law in the matter of traveling and postgraduate expenses, or to be continuously mulcted of the tax paid by the profession on such expenses. Having in mind, apparently, the strengthening of his position in refusing to recommend a reduction of the tax under the Harrison Narcotic Act, the Secretary of the Treasury has sought and obtained from the House of Representatives, and is seeking from the Senate, authority to absorb in the execution and enforcement of the Harrison Narcotic Act the war revenue now being collected under it. This means that he is endeavoring to procure an increase in the appropriation for its enforcement of from \$750,000 a year to \$1,250,000 a year, thus using up the ordinary excess revenue derived from the act. Obviously, there is no justification for assessing the cost of executing and enforcing this law against those who are taxed under it, as it is for the good of the public generally; but if the principle once is established, it will be difficult to modify or abolish. It is of the utmost importance that physicians who are interested in protecting the rights of the profession immedi-

ately write and telegraph to their senators, urging relief. Letters and telegrams should be sent particularly to the members of the Senate Finance Committee. Facts on which appeals for relief may be based were printed in *The Journal*, January 26, p. 326.—*Jour. A. M. A.*, March 15, 1924.

EDITORIAL NOTES

DEAR DOCTOR:

THE JOURNAL and the Cooperative Medical Advertising Bureau of Chicago maintain a Service Department to answer inquiries from you about pharmaceuticals, surgical instruments and other manufactured products, such as soaps, clothing, automobiles, etc., which you may need in your home, office, sanitarium or hospital.

We invite and urge you to use this Service.

It is absolutely FREE to you.

The Cooperative Bureau is equipped with catalogues and price lists of manufacturers, and can supply you information by return mail.

Perhaps you want a certain kind of instrument which is not advertised in THE JOURNAL, and do not know where to secure it; or do not know where to obtain some automobile supplies you need. This Service Bureau will give you the information.

Whenever possible, the goods will be advertised in our pages; but if they are not, we urge you to ask THE JOURNAL about them, or write direct to the Cooperative Medical Advertising Bureau, 535 N. Dearborn St., Chicago, Illinois.

We want THE JOURNAL to serve YOU.

No one can truthfully say that the policy, as set forth on page 120 is not wholly in the interest of the public welfare.

MEDICAL science has advanced to a position where not any except those who have a broad fundamental education can approach the study of it understandingly.

THE position of the Indiana State Medical Association in matters pertaining to legislation for all those who would treat the sick is so broad and fair that no right-minded individual should object to it.

WHEN writing the Medical Law, the Legislature intended that the penalizing clause would prevent all persons who had not complied with its provisions from treating the sick within the confines of the State of Indiana. The Legislature has been disappointed in the enforcement of that act, therefore the Legislature should be glad to amend it to meet the purposes for which it was adopted.

THE *Atlantic Medical Journal* suggests that the slogan, "Say it with flowers," which some enterprising florist coined and which has been so successful in that field, might well be changed to, "Say it with votes" for the medical profession.

We think this a splendid suggestion inasmuch as the time will be here soon when we can express our appreciation to those who will give us a square deal in the Legislature.

Don't forget that by saying it with votes we can do away with the flowers to express our regrets.

DR. KING, of the State Board of Health, says, "I believe that an up-to-date circular on diphtheria or typhoid fever would prove as interesting to the average patient as the six months' old number of *Collier's* ordinarily found on the table in the doctor's waiting room."

We quite agree with him. The State Board of Health will furnish the literature if the doctors will use it.

How many Indiana doctors keep a copy of *Hygeia* on the reading table in their reception rooms? Every doctor should subscribe for one or more copies of *Hygeia* and make it a point to see that the public has the use of those copies. One copy in each doctor's office and another copy in each public library or reading room in the various towns and cities would prove to be a great educational factor with the public.

IF the medical profession is going to bring about much needed changes in legislation and improve economic conditions for the practice of medicine, all of which is for the benefit of not only the medical profession but the public as well, it will be necessary for doctors as individuals to devote some time and attention to those movements which now are being sponsored and aided by our national and state medical organizations.

THE secretary of one of our prominent medical societies in Indiana says in his notice to members "Borrow the money to pay your dues if you are one of the delinquents." Not a bad suggestion. If he had to do it, he probably would borrow money to pay for most any kind of a luxury, so why object to borrowing money to pay for a necessity? Membership in a medical society is just as necessary as clothes to cover nakedness.

FOLLOWING the lead of the National Research Council, we would like to suggest to authors of papers to be presented before any of the medical societies in Indiana, and especially offered for publication in *THE JOURNAL*, that the paper conclude with an abstract or summary of the paper. This not only is of value to the reader, who may judge as to whether or not he wants to go over the entire paper, but is of particular interest to editors and others who abstract papers for publication and reference.

NEARLY three thousand doctors are members of the Indiana State Medical Association. What a power that body of men would be if its influence through every individual member was wielded in the interest of rational legislation. The trouble of it is, there are altogether too many of us, doctors as well as others, who pay too little attention to politics, and if we are ever going to have reasonable and consistent legislation and honesty in

the conduct of our public offices, more of us will have to take an active hand in politics.

IN a recent number of the *Journal of the American Medical Association* attention is called to the unwarranted claims for organotherapy and a justifiable warning is sounded in the following statement: "Unwarranted attempts at hypodermic or intravenous introduction of 'extracts' of complex and dubious composition into persons should always be made the subject of vigorous protest. Anaphylactic shock, protein sensitization, toxicity, and localized tissue damage are some of the undesired consequences of 'therapeutic credulity' on the part of uncritical physicians."

THIS is another election year and again there will be candidates for our State Legislature. Doctor, what are you doing to influence any of the political parties to put up candidates that are worthy of your representation? What are you doing to prevent sending to the legislature men who are opposed to rational medical practice and willing to barter the health of the people to quacks and members of pseudo-medical cults? This matter is worth thinking about now. It will not do to ignore it until after the next legislature convenes and then kick because things go wrong.

IN the February number of *THE JOURNAL* we called attention to the discovery of a new x-ray tube of high voltage for therapeutic use as announced by the Westinghouse Electric Manufacturing Company, and now comes an announcement from the General Electric Company of a new water-cooled high voltage Coolidge tube. This tube is especially applicable to either superficial or deep roentgeno-therapeutic work. It is reported to be standardized, as being able to withstand the continuous output of up to 50 milliamperes at 250,000 volts, an intensity of radiation hitherto scarcely dreamed of.

THE American Medical Association Bulletin hits the nail on the head when it says, "Does your church pay you a cash monthly dividend? Does your golf club or your social club pay you a cash monthly dividend? No, and neither will your county medical society. You get out of any of them just about what you put into them, but the medical society that you actively help to be successful is a bigger contributor to your success than either of the other two."

This is worth pondering over by those doctors who are complaining about medical society dues or from whom the dues have to be, figuratively speaking, pulled out of them with a derrick.

THE Journal of the American Medical Association calls attention to the necessity of making hotel reservations for the next session of the American

Medical Association, to be held in Chicago, June 9th and 13th. Already several of the larger and more centrally located hotels announce that their entire capacity has been reserved for the week of the convention. It would be well for those who expect to attend the Chicago session to make hotel reservations promptly if they expect to be well cared for. Dr. Frank Morton, Room 1522, 25 East Washington Street, Chicago, is chairman of the Committee on Hôtels for the Chicago session of the American Medical Association.

AIDED by better business bureaus, especially the one in Toledo, the Ohio authorities are making it uncomfortable for the chiros who are practicing in Ohio without a license. It has been discovered that the chiros do not hesitate to treat diphtheria, scarlet fever, chicken pox, and other communicable diseases, by their peculiar methods, but not being able to make a diagnosis they call the diseases by anything other than their right names and, very naturally, do not report them to the health authorities. However, Ohio is making it exceedingly warm for the chiros and it is hoped that the example set by that State may get other states, particularly Indiana, to adopt similar methods of bringing these impostors to the bar of justice.

EVERY well-trained physician has had the experience of seeing cases, clinically, of diphtheria in which antitoxin treatment has been delayed awaiting laboratory report. This is a serious mistake, and oftentimes valuable time is wasted. Do not wait for a laboratory report before administering antitoxin to cases that clinically indicate diphtheria. Another fact which should be emphasized is that age is no guarantee of immunity to diphtheria. In Indiana every year a few persons beyond middle age lose their lives from diphtheria on the false assumption that adults do not have the disease. Diphtheria may be contracted by the very aged and if the clinical symptoms indicate diphtheria, then antitoxin should be administered.

Do you know how your candidates for the legislature feel on the subject of medical legislation? Get acquainted with them and find out what they know about the medical situation. Make it clear to them that the State has a right to fix the qualifications for the practice of the healing art and that we as regular practitioners of medicine do not care about the kind of treatment used and actually would oppose dictating any peculiar form of treatment, but we are interested in knowing that those who hold themselves out to treat disease shall have a knowledge of the human body as obtained by such preliminary education as we now demand of our students who graduate from the medical department of Indiana University or any other recognized medical college.

WE have been asked if hospitals can bar chiropractors as attendants upon patients confined in the hospital. This question has been settled in the affirmative in numerous states. All hospitals not maintained by taxation unquestionably have the right to decide as to the character of patients to be admitted, and who shall take care of such patients. A hospital that is maintained by taxation has the right to refuse chiropractors admission as attendants upon patients on the ground that such an institution does not and can not from the very nature of things sanction law breaking, and in Indiana the chiropractors are lawbreakers for the reason that they are not licensed and it is a penal offense for anyone but a licensed physician to treat or hold himself out to treat the sick and afflicted.

Do you read *Hygeia*, that wonderful journal of individual and community health, published by the American Medical Association? If you do you must be impressed with its value as an educator of the public in matters pertaining to health problems. Every family in the United States should have a copy of *Hygeia*, and every doctor in the country should make an effort to see that his patients subscribe for *Hygeia* or at least secure a subscription in some way. We are under the impression that every county medical society should subscribe for *Hygeia* for the reading rooms in public libraries, Y. M. C. A. and Y. W. C. A. buildings and other public places where reading rooms are maintained. The American Medical Association deserves great credit for originating and maintaining this publication and we take our hats off to the contributors who are discussing health problems in such a practical and forceful way for the benefit of the laity.

THREE students of a chiropractic college in Chicago were arrested in February of this year in connection with the death of a girl who, it is said, died from the effects of a dislocated spine caused by the manipulations of a chiropractic student. We had supposed that chiropractors claim to correct dislocated spines rather than produce them, but anyway the day will come when this sort of fakery will receive its just desserts at the hands of an outraged public. Whenever the people learn that a knowledge of the human body in health and disease is necessary before attempting treatment, and that when such knowledge is obtained chiropractic and many other inconsistent forms of treatment will not be used, the public will be afforded the protection that it deserves. The members of the medical profession should make it quite clear that it is not the form of treatment, whatever it may be, to which the medical profession objects, but rather to the fact that those who are using any form of treatment should use it with some knowledge of its indications and applicability.

THE so-called congressional investigations in Congress, notwithstanding the fact that they may have shown up crookedness and malfeasance of office, are getting a little nauseating to the average citizen for the reason that they are conducted in such an unfair way. Those who are conducting the investigations seem bent upon persecuting rather than prosecuting, and all have political ends, all of which reminds us that the American people are very much asleep when it comes to selecting honest and capable men to represent them in Washington. Someone may say, well, what has this to do with the practice of medicine? To which we say that anything and everything that makes for bad government makes it difficult to practice medicine or any profession or vocation with the greatest amount of success, and each and every one of us owe it to ourselves and to our immediate community and the country as a whole to take a vital interest in politics upon which so much depends in the way of securing just and equitable laws and an honest conduct of public offices.

THE chiropractors are trying to make the public think that any sort of disease or malformation of the body can be treated by chiropractic adjustment. We had a patient suffering from deafness caused by impacted cerumen in the ears who had been having chiropractic adjustments to cure the deafness when a few minutes with a syringe would have accomplished the desired results. It would be well to ask the public for an opinion as to whether the disciples of chiropractic with their lack of education in the fundamentals of medicine and decided lack of training are capable of caring for such conditions as appendicitis, gallstones, pneumonia, typhoid fever, influenza, diphtheria, cerebrospinal meningitis, fractures of any kind, and if they really think that a chiropractor would be competent to judge as to the perfect health of an individual as, for instance, in passing an applicant for life insurance. As a matter of fact, nowhere do intelligent people consider a chiropractor competent to treat serious injuries or illness of any kind, and even the chiropractors themselves know that they are not.

IT is reported that the Austrian government is fast regaining her ability to cope with her gigantic health problems. However, the American Red Cross and other agencies have been of invaluable assistance in saving the lives and health of children and adults in Austria by giving them medical attention and suitable food. It will be of interest to learn that Dr. Von Pirquet, the famous child specialist in Vienna, is responsible for the instruction of a large number of teachers who are trained in anti-tuberculosis and child care methods, who, after their training, are sent out into the remote districts of the provinces to give instruction in the homes and schools. This work

has been augmented by the assistance of a number of well-known American physicians who work under the Red Cross or other welfare associations and who are devoting their entire time and attention to this public health work. Judging from the reports that come to us, it is very evident that what is most needed at the present time is a consolidation of forces and a unification of effort, for there are a number of organizations attempting the same character of work and this, of necessity, results in over-lapping to say nothing of an increase in operating expenses, which should be saved.

ACCORDING to the *Bulletin of the American Medical Association* for March, the *Cleveland Press* has been heralding a number of wonderful so-called discoveries. This paper under date of February 27th gives an account of a "secret serum" which its sponsors are said to believe to be a cure for cancer. The man who brought the serum from Germany was compelled to work his way to New York as assistant surgeon on a steamship, says the newspaper statement, inasmuch as the scientists with whom he is associated are all so poor that they could not raise the price of passage (?). There was also a news item which stated that a Berlin physiologist had "started a storm of controversy in the medical world by announcing that new-born babies frequently have tails which they can wag." The tails, says the announcer, disappear rapidly as the infants grow. A Cleveland physician rises to inquire whether there is a definite tendency to foist pseudo-scientific propaganda on the American people, or whether foreign scientists are entering on a miracle age.

It is difficult to prevent an enterprising newspaper reporter from making news items of such statements, but it is unfortunate that such sensational and exaggerated accounts should be given a credulous public.

THE Bureau of Publicity is functioning. Already a number of lay papers throughout the State are accepting and publishing contributions from the Bureau that are of much importance and value in educating the public concerning the work of the medical profession in alleviating human ills as well as in representing and working for higher ideals in medical practice. The Bureau was created with the distinct idea in view of creating in the minds of the public a better understanding of the question of educational standards as a requisite for the practice of medicine and with a further view of being an aid to the State Board of Health and other organizations in giving the public a better idea of the nature, cause and treatment of various diseases and, in general, how to keep well. Incidentally, the work of the Bureau is going to be of inestimable value

to our committee on legislation and the effort that is being put forth to influence our lawmakers to pass better and more stringent legislation concerning the qualifications of those who attempt to treat the sick. The Bureau is not attempting to do scientific work for the profession in any shape or form, nor will it meddle with organization affairs any further than to stimulate a co-operation upon the part of individual physicians in an attempt to secure those results that should be secured by getting the public's confidence and support.

THE common expression "long haired men and short haired women" used to apply to fanatical people, or those considered as mentally warped, but nowadays we have to be a little careful about how we slander the short haired woman, for with the craze for bobbed hair striking women in all grades of society perhaps many of them would resent being considered mentally unbalanced even though we are inclined to believe that some mentally unbalanced do bob their hair. In reality while the bobbing of hair started as a fad with some of the girls and women who wanted to be just a little different than others, still there is some merit to the practice of wearing the hair short, not only as a matter of convenience but for cleanliness. There is not much doubt that the woman with bobbed hair keeps her hair as well as her scalp cleaner than the woman who has long flowing tresses upon which she prides herself. There was a time, and since Esau's day at that, when men thought they had to wear alfalfa-like whiskers, and hair falling to the shoulders, but that day has passed. Clean shaven men are the rule, and a "bewhiskered" man is a rare exception outside of a patent medicine show or the ranks of a religious sect having peculiar views concerning the cutting of hair. We do not say that we particularly fancy the bobbed hair which can be seen on many of the so-called "flappers" of the present day, but perhaps it is merely a question of getting used to the new form of appearance, just as we had to get used to dresses that escape the filth of the floor instead of sweeping it up as in a period of not long ago. From a hygienic standpoint we are in sympathy with the woman who "bobs" her hair, but from the esthetic standpoint we are opposed to the practice.

It is unfortunate that doctors as a class are unmindful of their own interests. They are apathetic and even unappreciative when it comes to a consideration of the things that makes for their own success and the benefit which perhaps is afforded them through the work of others. The Bureau of Legal Medicine and Legislation of the A. M. A. is making a strenuous effort to secure changes in our federal laws that are of direct benefit to individual members of the medical association, and yet, as stated by the secretary of

the Bureau, communications addressed to medical men concerning medical legislation often remain unanswered and absolutely no attention is given the matter. One of the greatest obstacles in the way of securing relief from some of our burdens is the failure of the individual practitioner to do his part. He leaves it to his medical society. The individual practitioner, the man who votes, hesitates to speak up when opportunity offers, and to make his representatives and his senators, state and national, know that they owe certain duties to the profession and certain duties to the people which they can discharge only through the profession. It seems like a hopeless task to arouse the individual physician to a greater degree of self help, and the few who are working to that end get discouraged. The very practitioners who are so inactive and apathetic howl like stuck pigs because they get no help from legislative action, and they find fault with the few leaders in the profession who are working for the common good, but these fault finders do nothing themselves. Something must be done to change this attitude, and we suggest that every county medical society in Indiana put on a legislative program within the near future and get busy in a discussion of ways and means to further the legislative program.

It is a pity that some doctors as well as others who feel compelled "to take pen in hand" can not appreciate the necessity of having something worth while to say and then to say it in concise and relatively good English. If there is one thing that disturbs the equanimity of an editor's life it is the necessity of polishing up a manuscript so that it will be readable, or being obliged to print a mediocre paper or one that represents the rankest kind of plagiarism because such paper forms a part of the proceedings of a medical society that rules of the society require shall be published.

A paper that is to be presented before the American Medical Association must possess three essentials for acceptance and publication. First, it must contain and establish positively new facts, modes of practice or principles of real value. Second, it must contain the results of well devised, original experimental researches. Third, it must present so complete a review of the facts on some particular subject as to enable the writer to deduce therefrom legitimate conclusions of importance. This rule ought to apply in the acceptance of papers for any medical program, and it ought to be taken into consideration by any doctor who desires to have a place on the program of any medical society. No justifiable complaint can be made concerning a paper that reviews the literature on any given subject, giving due credit to the various authors and ending in conclusions drawn from an analysis of such literature, but a

paper that is a mere textbook paper, whether with or without due credit, shows a lack of resourcefulness on the part of the one presenting it, and we have altogether too many such papers presented before our medical societies. In reality, well worked up case reports and deductions drawn from experience always prove interesting and such presentations before our local medical societies should be encouraged.

A woman in Fort Wayne was sick for several weeks and finally died. Her only attention was that administered by Christian Scientists, and they officiated at her funeral. Throughout her illness it is presumed that they told her she was not sick, but only thought so. It would have been quite consistent for the Christian Scientist to say to the corpse, "You are not dead, you only think so," but they added a little more to the ceremony by reading a few well chosen verses from Mrs. Eddy's noteworthy book. It was necessary to have a certificate of death before the body could be buried and an obliging doctor supplied the document.

Isn't it about time that doctors refuse to sign death certificates for Christian Scientists? There are no individuals or no class of people who are doing more than the Christian Scientists to discredit scientific medicine, and yet in order to cover up their criminal neglect in giving appropriate care to those who might be benefited by scientific medicine they call in a registered practitioner of medicine to help them out in complying with a very just law.

A female acquaintance of ours was an invalid for many years and finally a good surgeon removed from her pelvis an abnormally large fibroid. Soon after the operation, and after she had regained her health, she took up Christian Science and ever afterward deceitfully and hypocritically declared that her restoration to health was due to Christian Science. So it goes with most of the Christian Scientists. Many of them delude themselves and are honest in their convictions, but many of them are willfully and intentionally inconsistent in their arguments, and not a few of them are actually and knowingly dishonest in their claims.

No thinking physician denies that Christian Science, or more properly speaking, psychotherapy, is beneficial in a large number of cases where the ills are imaginary or due to perversions of the mind, but it is nothing short of a crime to attribute all ills and abnormalities of the human body to a psychic cause and depend upon Christian Science or any other form of mind treatment to produce a cure, and it is nothing short of dishonesty which influences a woman, an invalid for many years as a result of a fibroid tumor of the peritoneal cavity, to attribute her restoration to health to Christian Science when a surgical operation, the only consistent and ra-

tional treatment for such conditions, was responsible for the cure.

To our notion the medical profession has been too tolerant with Christian Scientists and has virtually boosted their game when it should have been opposed. Let's get away from this idea that we curry favor with anyone or that we are performing a righteous duty when we go to the death bed of a Christian Scientist to minister during the last moments, and wind up by signing the death certificate.

WE often have had occasion to refer to the brow-beating tactics of insurance companies in their efforts to secure a reduction of bills for medical services rendered in industrial cases, and quite recently we have read a letter from an insurance company to a doctor concerning the settlement of a bill for very reasonable charges for services rendered in which the following paragraph occurs: "If you insist in carrying out this practice (referring to regular charges for professional services), we will be compelled to ask you to have nothing further to do with our cases and will notify all policy holders in case of injury to one of their employees, to seek other medical services."

This is but a sample of threats that are made openly or by insinuation by a number of insurance companies that insure employers for industrial accidents, and it is high time that the medical profession of the State take some means of preventing the imposition that is being heaped upon many doctors who care for industrial cases. In the first place the insurance companies go upon the theory that a doctor should charge minimum fees for services rendered employees who are drawing minimum wages, but they make no provision for making up for this by allowing even ordinary compensation for the employees who draw good salaries and who, if they were paying their own bills, would be able to pay the regular fees. However, in the scheme of furnishing adequate care for injured employees the law should not be so interpreted as to make members of the medical profession suffer unjustly. The unions compel the payment of a certain wage, and federal and state laws compel employers to furnish healthful conditions for the laborer, including good sanitary conditions and even improved machinery which will lessen the risks of accidents, and it compels the employer to take care of the injured employee and compensate him in part at least for loss of time. It does not say that all of this service shall be gauged in its amount or cost to the size of the wage received by the employee, and therefore why should the cost of the services rendered in caring for the injury depend in any measure upon the wage of the employee? In fact, the employee is entitled to and should receive the best medical and surgical attention to

be obtained, but there is no good and sufficient reason why that attention should not be paid for at reasonable rates irrespective of the financial condition of the one receiving the services. In fact, why should the doctor be made to pay tribute to either the employer or the insurance companies as he does at the present?

We grant that there is reason in all things, and that it is entirely possible to formulate a system of fee charging that would be unreasonable, but at the present every doctor in Indiana who does industrial work is underpaid, sometimes shamefully so, with the possible exception of those men of reputation and ability who positively refuse to serve the insurance companies at the ridiculous fees which most of the insurance companies are willing to pay, and who proceed to demand and to collect reasonable compensation for any and all industrial work. The Ohio doctors, through the action of the Ohio State Medical Association, have succeeded in revising their schedule of fees for industrial work, and they have gone a step farther by securing the appointment of a reputable medical man as a member of the industrial board, with a view to having controversies in industrial cases over professional services and the compensation thereof handled in an impartial manner.

Why can't we have some action in this State tending to a revision of the plan under which we are operating in industrial cases? There is absolutely no reason why we should be playing into the hands of insurance companies as we are at the present time. On the whole the employers of labor want their employees to have the very best of medical and surgical attention, and they are willing to pay for it. It is the insurance companies that try to dictate as to whom shall be employed and the amount to be paid. In some instances insurance representatives even misrepresent the law and its provisions in order to secure a settlement that is favorable to them.

This matter is something for our Association to consider through the Civic and Industrial Committee, aided perhaps, by our Legislative Committee.

DEATHS

MICHAEL ADDISON, M.D., of Noblesville, died February 21st at the age of 64 years.

W. D. WATSON, M.D., of Tennyson, died March 12th at the age of 78 years. Dr. Watson was a graduate of the Kentucky School of Medicine, Louisville, in 1888.

A. A. EIKENBERRY, M.D., of Indianapolis, died March 18th at the age of 64 years. Death followed a stroke of apoplexy. Dr. Eikenberry graduated from the Medical College of Indiana, Indianapolis, in 1885.

W. D. WHITNEY, M.D., of Muncie, died March 2nd, aged 72 years. Dr. Whitney was a graduate of the University of Buffalo Department of Medicine in 1874.

JOSEPH W. DUNFEE, M.D., aged 65 years, formerly of Etna Green, died March 3rd at the home of his daughter in Atwood. Dr. Dunfee graduated from the Curtis Physio-Medical Institute, at Marion, in 1894.

CLARENCE S. AUBLE, M.D., of Indianapolis, died at his home March 6th at the age of 42 years. Dr. Auble was a graduate of the Indiana University School of Medicine, Bloomington-Indianapolis, in 1912. He was a member of the Indianapolis Medical Society, the Indiana State Medical Association and the American Medical Association.

SARAH STOCKTON, M.D., of Indianapolis, who was affiliated with the Central Indiana Hospital for the Insane for the past twenty-five years, died March 13th at the age of 82 years. Dr. Stockton graduated from the Woman's Medical College of Pennsylvania, Philadelphia, in 1882. She was a member of the Indianapolis Medical Society, the Indiana State Medical Association and the American Medical Association.

JONATHAN P. WORRELL, M.D., 80 years of age, eye, ear, nose and throat specialist of Terre Haute, died February 22nd. Dr. Worrell was a graduate of the University of Pennsylvania School of Medicine, Philadelphia, in 1867. He was a fellow of the American Medical Association and a member of the Indiana State Medical Association and the Vigo County Medical Society. Dr. Worrell also held membership in the American Ophthalmological Society, the Chicago Ophthalmological Society, the American College of Surgeons and the Indiana Academy of Ophthalmology and Otolaryngology.

NEWS NOTES AND PERSONALS

Anything in the line of physicians' supplies or equipment may be obtained from advertisers in THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION. Patronize these advertisers, for it means a continuance of their advertising patronage, and the latter means a larger and better Journal for you.

DR. DAVID H. SLUSS, of Indianapolis, has been made house surgeon of the City Hospital, at Boston, Mass.

DR. C. E. COTTINGHAM, of Indianapolis, has announced the limitation of his practice to neuropsychiatry.

DR. JOSEPH O. STILLSON, of Indianapolis, has announced the return of his office to his former location in the Medical Arts Building.

HAVE you read the position of the Indiana State Medical Association on page 120 of this issue, in matters pertaining to Legislation?

DR. J. L. GILBERT, of Kendallville, who has practiced medicine in that city for more than fifty years, celebrated his eightieth birthday March 16th.

DR. DEMETRIUS TILLOTSON, former superintendent of the Indiana Methodist hospitals, has been made superintendent of the Presbyterian Hospital at Denver.

THE Daviess-Martin County Medical Society held a meeting at Washington, March 6th. Papers were presented by Dr. T. F. Spink and H. C. Wadsworth.

THE Jay County Medical Society held a meeting March 7th at Portland. Dr. George S. Bond, of Indianapolis, presented a paper on "Diseases of the Heart."

DR. ASHLEY A. PIELEMEIER, of Vincennes, and Miss Ruth Orchard, of Bloomington, were married February 27th. They have made their home at Vincennes.

DR. CHARLES J. GOETHALS, of Mishawaka, and Miss Hazel Vermilion, of Plymouth, have announced their engagement. Their marriage will take place in June.

DR. GEORGE H. SMITH, of the Newcastle Clinic, Newcastle, has gone to Florida for a few weeks for recuperation, having recently undergone two serious operations.

THE Dearborn-Ohio County Medical Society held its regular monthly meeting February 29th, in Aurora. Dr. E. J. Libbert, of Aurora, presented a paper on "Empyema."

DRS. DAVID ROSS, C. E. Cottingham, W. E. Tinney, C. B. Gutelius, and H. A. Walker have announced the removal of their offices to 611 Medical Arts Building, Indianapolis.

THE Northeastern Indiana Academy of Medicine held a meeting at Gawthrop Inn, Kendallville, March 27th. Dr. C. W. Waggoner, of Toledo, presented a paper on "Arthritis."

THE Indianapolis Medical Society held a meeting March 4th at the Indiana Dental College building. Dr. Porter Vinson, of the Mayo Clinic, presented a paper on "Cardiospasm."

THE Jasper-Newton County Medical Society held its regular monthly meeting at Rensselaer,

March 28th. Papers were presented by Drs. G. H. VanKirk and J. G. Kinneman.

THE Kosciusko County Medical Society held its monthly meeting at the Warsaw Library March 18th. A paper was presented by Dr. Charles P. Emerson, of Indianapolis.

DR. EUGENE L. BULSON, of Fort Wayne, has returned to his home following a several weeks' stay in Boston, where he has been doing post-graduate work at Harvard University.

THE Boone County Medical Society held its regular monthly meeting March 4th at Lebanon. Dr. J. H. Warvel, of Indianapolis, presented a paper on "Insulin in the Treatment of Diabetes."

IT has been announced that Albert B. Cole, of Indianapolis, who in February gave \$1,500 to the Methodist Episcopal Hospital, of Indianapolis, has recently given an additional \$8,500 to the hospital.

THE Madison County Medical Society held a meeting March 18th at Anderson. Dr. Frank Forey, pathologist at the Indiana University School of Medicine, gave demonstrations of blood microscopy.

DR. GEORGE MILLS, who has been assistant superintendent of the Irene Byron Tuberculosis Hospital at Fort Wayne, has been made superintendent of the Boehne Tuberculosis Hospital at Evansville.

THE Delaware-Blackford County Medical Society held a meeting March 7th at the Hotel Roberts, Muncie. Dr. John Oliver, of Indianapolis, presented a paper on "Some Unusual Bone Conditions."

CONTRACTS have been let for the building of a fifteen-room addition to the Goshen Hospital, to be completed by July 1st. The addition will connect the hospital building with the training school for nurses.

THE Indianapolis Medical Society held a meeting at the Indiana Dental College, Indianapolis, April 1st. The general topic of "Medical Legislation" was discussed by Drs. Frank W. Cregor, W. N. Wishard, S. E. Smith, and Charles R. Sowder.

THE Tippecanoe County Medical Society has announced the following officers for 1924: Dr. O. E. Griest, Lafayette, president; Dr. W. F. McBride, Dayton, vice-president; Dr. J. C. Burkle, Lafayette, secretary; Dr. Charles Hupe, Lafayette, treasurer, and Dr. W. R. Moffit, West Lafayette, censor.

At the monthly dinner-meeting of the St. Joseph County Medical Society, held in South Bend, March 5th, Dr. R. B. Dugdale, who has acted as secretary and treasurer of the organization for more than ten years, was presented with a portfolio.

THE PITMAN-MOORE COMPANY, of Indianapolis, is building a new three-story building which is the first of three buildings that are to compose the Indianapolis plant of that company. The building will be situated at Madison Avenue and Morris Street.

At the fifth annual meeting of the American Roentgen Ray Society held in Indianapolis, February 23rd, Dr. B. R. Kirklin, of Muncie, was made president. Dr. W. A. Evans, of Detroit, was made secretary and Dr. George Thomas, of Cleveland, first vice-president.

THE Inter-State Post-Grade Clinic Tour to Canada, British Isles, and Paris in 1925 is being arranged under the supervision of the Tri-State District Medical Association. Applications should be made to Dr. William B. Peck, Freeport, Illinois, as early as possible.

At the thirteenth annual conference of the Indiana Tuberculosis Association held in Fort Wayne in February, C. O. Holmes, of Gary, was made president; Dr. St. Claire Darden, South Bend, first vice-president, and Earl Groth, Fort Wayne, second vice-president. Dr. Alfred Henry, of Indianapolis, was made secretary.

THE public health service is utilized by many passenger vessels that do not carry physicians and this is done through the medium of advice by radio to the vessels while they are at sea. Surgeon-General Hugh S. Cumming has published the details in a number of instances where this service has been of inestimable value.

THREE thousand dollars has been given to the Harriman Research Laboratory by Dr. Edward Plaut, president of Lehn & Fink, Inc., New York, to be known as the "Plaut Research Fund for Studies in Internal Medicine." This fund is to aid in the investigation of the effects of certain therapeutic agents, especially the endocrine glands.

THE Northern Tri-State Medical Association held its fifty-first annual meeting April 8th at the Oliver Hotel, in South Bend. Papers were presented by Drs. Frederick W. Hipwell, of Toronto, Canada, on "Insulin;" G. V. Brown, of Detroit, on "Reduction of the Risk Element in Prostatectomy;" M. J. Capron, of Battle Creek, on "Treatment of Chronic Myocarditis," and John

F. Erdmann, of New York City on "Tumors of the Breast."

ARRANGEMENTS are being made for a five weeks' post-graduate course in broncho-esophagocopy and in plastic and mastoid surgery by Professors E. J. Moure and Georges Portman, of Bordeaux University, to be given in Bordeaux, France, from June 8 to July 15, 1924. Lectures will be given in English. The class will be limited to thirty students. For detailed information apply to Dr. Leon Felderman, 4428 York Road, Philadelphia, Pa.

THE Second District Medical Society held a meeting at Vincennes, April 3rd. In the afternoon session papers were presented by Drs. Arthur E. Guedel, of Indianapolis; J. V. Stevens, of Spencer; Arthur A. Rang, of Washington and George S. Bond, of Indianapolis. During the dinner hours Dr. Olin West, of Chicago, presented a paper on "Medical Organization." At the evening meeting a paper on "Heredity and Human Progress" was presented by Dr. Martin H. Fisher, of Cincinnati, Ohio.

THE annual meeting and banquet of the Elkhart County Medical Society was held April 3rd, at Goshen. The afternoon program consisted of papers by Drs. Louis J. Pollock, of Chicago, on "Focal Diagnosis in Nervous Diseases;" Frank W. Cregor, of Indianapolis, who presented a connotation; Vernon C. David, of Chicago, on "The Late Results in Fracture of the Femur in Children;" and Carl A. Hedblom, of the Mayo Clinic, Rochester, on "Chronic Nontuberculous Pulmonary Suppuration." At the public meeting in the evening Dr. Frank W. Cregor, of Indianapolis, presented an address on "Skin Cancer," and Dr. Albert E. Bulson, Jr., of Fort Wayne, presented an address on "The Making of a Physician."

THE Committee on Public Policy and Legislation held a meeting in Indianapolis on the evening of January 19th. At this meeting all matters pertaining to legislation were thoroughly gone into and a free discussion had by the committee. As a result the legislature policy for this year preparatory to the 1925 legislature was adopted. Effort will be made to amend the Medical Practice Act in a manner that will make its full enforcement possible, to the end that quacks, crooks and charlatans, who purchase diplomas, or who attempt to tamper with so precious a thing as the human body without first qualifying themselves, will be excluded from the State of Indiana.

ANNOUNCEMENT has been made of the creation of the Banting Research Foundation. The purposes of this foundation are to provide, in the first instance, further funds for the support of the

Banting and Best Chair of Medical Research at the University of Toronto, and to establish a fund for the adequate financial support of such scientific workers as may have proposed definite problems of medical research, and for whom funds are not otherwise available. Such assistance may be given to persons working in the University of Toronto or elsewhere. An appeal for funds will be made in the immediate future. Subscriptions to the fund may be made at any time and should be made payable to the Banting Research Foundation, Toronto, Canada.

In addition to the articles already enumerated, the following have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association:

Parke, Davis & Company:

- Apothesine.
- Apothesine Solution.
- Apothesine Hypodermic Tablets 0.08 Gm. (1¼ Gr.)
- Apothesine and Adrenalin Hypodermic Tablets.
- Apothesine and Adrenalin Hypodermic Tablets (R "B").
- Apothesine and Adrenalin Hypodermic Tablets Cylindrical (for pressure anesthesia).
- Apothesine Ointment.
- Pituitrin "S" (Surgical).

E. R. Squibb & Sons:

- Cod-Liver Oil—Squibb.

United States Standard Products Co.:

- Acne Vaccine.
- Gonococcus Vaccine.
- Pertussis (Whooping Cough) Vaccine.
- Staphylococcus Combined Vaccine.
- Streptococcus Vaccine.
- Typhoid Vaccine.
- Typhoid Paratyphoid Vaccine Combined.
- Acne Vaccine Combined.
- Normal Horse Serum.
- Diphtheria Antitoxin, Refined and Concentrated.
- Diphtheria Toxin-Antitoxin Mixture (0.1L+).
- Diphtheria Toxin for Schick Test and Control.
- Tetanus Antitoxin.

SOCIETIES AND INSTITUTIONS

INDIANA STATE BOARD OF HEALTH

The American Child Health Association is sponsoring a nation-wide observance of MAY DAY as Child Health Day in an effort to have people everywhere give especial thought to everything pertaining to better child health on that day and to have May 1st become more and more each year an annual Child Health Day. May 1st seems especially appropriate for such an observance because of the childhood traditions associated with this day. The State Board of Health will co-operate in every possible way in making Child Health Day worth while in the State of Indiana. The Child Hygiene Division of the

State Board has prepared a suggestive program for community observance in the schools, in churches, in meetings of various organizations, with suggestions for business men and stores. Copies of this tentative program will be gladly furnished to any and all who are interested.

President Coolidge has given his support to the idea and has given a message to the American people on the importance of child health. Thomas R. Marshall, ex-vice-president, has accepted the May Day chairmanship for Indiana, and will issue an appeal to the people of Indiana urging the importance of giving thought and attention on that day to the betterment of every condition that in any way affects child health and child welfare. Governor McCray, together with governors of other states, are giving support to the movement and will urge a state-wide observance of the day. It is the hope of the State Board of Health that the appeal for better child health will reach the heart of every Indiana citizen on MAY DAY.

EVERY DAY IS BABY DAY IN INDIANA, BUT MAY DAY IN INDIANA IS EVERY BABY'S DAY.

The State Board of Health is conducting a series of public health educational weeks in various cities of the State. Health Weeks have been held in Jeffersonville, Connorsville, Alexandria, and Marion, and engagements are made for Princeton and Paoli. These Health Weeks will be continued at least until the schools close. In conducting these health demonstrations the State Board of Health has a complete educational exhibit, which is put in place in a convenient location in the city, open to the public each day and evening. The various grades in the schools and the high school are given an opportunity to visit the exhibit, where the health lessons are explained and short health talks are given. Special meetings of various kinds are arranged, such as health talks before luncheon clubs, women's clubs, and parent-teacher organizations. Public meetings are arranged for the evening, at which a speaker from the State Board of Health gives a health talk and where health films are shown. Conferences on local health problems pertaining to sanitation, water supply, sewage disposal, and the activities of the health department are held, so that practically every phase of community effort in public health work is covered at one time or another during the Health Week. An effort is made to secure the co-operation of every organization in the community in the arrangement of the program for Health Week. The exhibit and movie films are in charge of Mr. Raymond Bright, while the program of lectures and addresses is in charge of Dr. Arthur L. Oilar, epidemiologist for the State Board of Health. These Health Weeks so far have been very successful and have developed a tremendous interest on the part of the public.

The Annual Health Officers' Conference of the State Board of Health will be held in Indianapolis at the Claypool Hotel, Tuesday and Wednesday, May 27th-28th. This will be the thirtieth annual conference. The program of the coming conference will be devoted largely to a discussion of the duties of county, city, and town health officers, and to the opportunity and responsibility not only of local health officers, but of physicians and citizens generally for community public health.

VIGO COUNTY MEDICAL SOCIETY

A meeting of the Vigo County Medical Society was held April 1, 1924.

Dr. James H. Stygall, Executive Secretary of the Bureau of Publicity of the Indiana State Medical Association, talked on the accomplishments and future plans of the Bureau. His instructive presentation of this work was well received and discussed by the members present.

Dr. David Ross, of Indianapolis, read a paper on "The Tuberculous Spine, with Especial Reference to the Surgical Treatment".

TRUTH ABOUT MEDICINES

NEW AND NONOFFICIAL REMEDIES

PATCH'S FLAVORED COD LIVER OIL.—Cod liver oil containing 0.5 per cent of essential oils as flavoring, and having a vitamin potency so that 0.002 Gm. per day is adequate to promote the growth of young albino rats. For discussion of the actions and uses of cod liver oil, see *Useful Drugs*. The dose is not more than 4 Cc. (1 fluidrachm) 3 times a day. For children not more than 2 Cc. (30 minims) 3 times a day. E. L. Patch Co., Boston.

VITALAIT CULTURE BACILLUS ACIDOPHILUS.—A pure culture of *Bacillus acidophilus* in vials each containing about 7 Cc. It contains not less than three hundred million of viable organisms (*B. acidophilus*) per cubic centimeter at the time of sale. For a discussion of the actions and uses of cultures of *B. acidophilus*, see *Lactic Acid-Producing Organisms and Preparations*, (*Jour. A. M. A.*, Sept. 8, 1923, p. 831). The usual dosage is the contents of one vial diluted with water and followed by a quantity of sugar of milk. The culture is distributed by the manufacturer only and is sent by mail. The Vitalait Laboratory of California, Pasadena, Calif. (*Jour. A. M. A.*, March 1st, p. 717).

APOTHESEINE.—**DIETHYL-AMINO-PROPYL CINNAMATE-HYDROCHLORIDE.**—Apothesine is a local anesthetic of the procaine rather than the cocaine type, that is, it belongs to that type which, while effective for injection anesthesia (especially when combined with epinephrine), is relatively inefficient when applied to mucous membranes. It is rather slower in action than procaine. Its absolute toxicity is less than that of cocaine, but about twice that of procaine. It is employed for infiltration injection, nerve blocking, intraspinal injection, pressure anesthesia, oral administration as a palliative measure, for post operative and persistent vomiting and pain of gastric ulcer. As a local anesthetic, apotesine is used in 0.5 to 2 per cent solution, generally with epinephrine and sterile water or physiological solution of sodium chloride. Apothesine is marketed in substance and also in the following forms: apotesine solution 1.5 per cent; apotesine hypodermic tablets 0.08 Gm.; apotesine and adrenalin hypodermic tablets (apotesine 0.04 Gm.; adrenalin 0.00004 Gm.); apotesine and adrenalin hypodermic tablets (apotesine 0.3 Gm.; adrenalin 0.0003 Gm.); apotesine and adrenalin hypodermic tablets cylindrical (apotesine 0.01 Gm.; adrenalin 0.000025 Gm.); apotesine ointment (apotesine 10 per cent; adrenalin 1:60,000; and menthol 0.5 per cent). Parke, Davis & Co., Detroit. (*Jour. A. M. A.*, March 8, 1924, p. 793).

BUTESIN PICRATE.—**TRINORMALBUTYLPARAMINOENZOATEDINITROPHENOL.**—A compound consisting of one molecule of trinitrophenol (picric acid) and three molecules of normal butyl ester of 4-aminobenzoic acid. Butesin picrate combines the anesthetic action of butesin with the antiseptic properties of trinitrophenol (picric acid). An aqueous solution of 1:1,400 produces immediate and complete anesthesia of the eye which lasts from ten to twenty minutes. Butesin picrate is used in the treatment of burns, ulcers and other denuded, painful lesions of the skin. For use, a one per cent butesin ointment is supplied by the manufacturer. The Abbott Laboratories, Chicago.

NORMAL HORSE SERUM.—A normal horse serum (see *New and Nonofficial Remedies*, 1923, p. 281) marketed in packages of one syringe containing 10 Cc.; also in packages of one syringe containing 20 Cc. United States Standard Products Co., Woodworth, Wis. (*Jour. A. M. A.*, March 15, 1924, p. 876).

DIBROMIN.—**DIBROMOBARBITURIC ACID.**—Dibromin is an antiseptic and germicide proposed for use in solution as an irrigating fluid and wet dressings, for flushing cavities, irrigating infected wounds and for saturating gauze

packings. Dibromin is claimed to be practically free from irritating or toxic properties in the concentrations required for therapeutic use. Solutions of 1:10,000 (6 grains to one gallon) or stronger are used. Dibromin is marketed in six grain capsules. Parke, Davis & Co., Detroit.

ACNE VACCINE.—An acne vaccine (see *New and Nonofficial Remedies*, 1923, p. 302) marketed in packages of one 10 Cc. vials, each Cc. containing 40 million killed bacteria. United States Standard Products Co., Woodworth, Wis.

GONOCOCCUS VACCINE.—A gonococcus vaccine (see *New and Nonofficial Remedies*, 1923, p. 304) marketed in packages of one 10 Cc. vial, each Cc. containing 1,000 million killed gonococci. United States Standard Products Co., Woodworth, Wis.

PERTUSSIS (WHOOING COUGH) VACCINE.—A pertussis bacillus vaccine (see *New and Nonofficial Remedies*, 1923, p. 306) marketed in packages of one 10 Cc. vial, each Cc. containing 3,000 million killed pertussis bacilli. United States Standard Products Co., Woodworth, Wis.

TYPHOID VACCINE.—A typhoid vaccine (see *New and Nonofficial Remedies*, 1923, p. 314) marketed in packages of three 1 Cc. vials, containing 500 million, 1,000 million and 1,000 million killed typhoid bacteria, respectively. United States Standard Products Company, Woodworth, Wis.

TYPHOID PARATYPHOID VACCINE (COMBINED).—A typhoid vaccine (see *New and Nonofficial Remedies*, 1923, p. 314) marketed in packages of three 1 Cc. vials, the first dose containing 500 million killed typhoid bacteria, 375 million killed paratyphoid A and 375 million killed paratyphoid B bacteria, the second and third doses each containing 1,000 million killed typhoid bacteria, 750 million killed paratyphoid A bacteria and 750 million killed paratyphoid B bacteria. United States Standard Products Co., Woodworth, Wis. (*Jour. A. M. A.*, March 22, 1924, p. 967).

STAPHYLOCOCCUS COMBINED VACCINE.—A staphylococcus vaccine (see *New and Nonofficial Remedies*, 1923, p. 310) marketed in packages of one 10 Cc. vial, each Cc. containing 1,000 million killed *Staphylococcus albus* and 1,000 million killed *Staphylococcus aureus*. United States Standard Products Co., Woodworth, Wis.

STREPTOCOCCUS VACCINE.—A streptococcus vaccine (see *New and Nonofficial Remedies*, 1923, p. 312) marketed in packages of one 10 Cc. vial, each Cc. containing 400 million killed streptococci. United States Standard Products Co., Woodworth, Wis.

ACNE VACCINE COMBINED.—A mixed bacterial vaccine (see *New and Nonofficial Remedies*, 1923, p. 318) marketed in packages containing one 10 Cc. vial, each Cc. containing 40 million killed acne bacilli and 1,000 million killed *Staphylococcus albus*. United States Standard Products Co., Woodworth, Wis.

DIPHTHERIA ANTITOXIN, REFINED AND CONCENTRATED.—A refined and concentrated diphtheria antitoxin (see *New and Nonofficial Remedies*, 1923, p. 283) prepared according to a modification of Banzhaf's method, marketed in syringes containing 1,000, 3,000, 5,000, 10,000 and 20,000 units, respectively. United States Standard Products Co., Woodworth, Wis.

DIPHTHERIA TOXIN-ANTITOXIN MIXTURE, 0.1L+.—A diphtheria toxin-antitoxin mixture (see *New and Nonofficial Remedies*, 1923, p. 284) each Cc. constituting a single dose and marketed in packages of 3 vials, each containing 1 Cc.; in packages of 30 vials each containing 1 Cc., and in packages of one vial containing 30 Cc. United States Standard Products Co., Woodworth, Wis.

DIPHTHERIA TOXIN FOR SCHICK TEST AND CONTROL.—A diphtheria immunity test (see *New and Nonofficial Remedies*, 1923, p. 323) marketed in packages containing a vial with undiluted diphtheria toxin and physiological solution of sodium chloride for dilution. As a means

of control there is also supplied diphtheria toxin which has been heated to destroy the exotoxins. The product is marketed in packages containing an amount sufficient for fifty tests; also in packages containing an amount sufficient for one hundred tests, but the strength of the toxin is such that the dose is 0.1 Cc. United States Standard Products Co., Woodworth, Wis.

TETANUS ANTITOXIN.—A concentrated tetanus antitoxin (see New and Nonofficial Remedies, 1923, p. 284) prepared according to the Banzhaf method. Marketed in syringes containing 1,500, 5,000 and 10,000 units. United States Standard Products Co., Woodworth, Wis. (*Jour. A. M. A.*, March 29, 1924, p. 1047).

PROPAGANDA FOR REFORM

CITROPHAN.—This is a "fat cure" exploited to the medical profession and the public by the Gotham Corporation, New York City. The only statement bearing on the identity of Citrophan which is made is the claim that it is "a new organic iodine compound." The claims made for Citrophan are many and various, back of all of them is the fundamental thesis: "Science has found that the chief cause of obesity lies in the development of alcohol in the digestive tracts brought about by the action of yeast bacteria—taken into the stomach in improperly baked bread—and on raw fruits and vegetables." This claim is unsupported by scientific work. The A. M. A. Chemical Laboratory reports that Citrophan is sold in the form of tablets ranging in weight from about $4\frac{1}{2}$ grains to more than 7 grains. Analysis indicated that the chief medicinal ingredient was tetraiodophenolphthalein. Sugar of milk, starch, vegetable tissue and traces of an acid insoluble substance (probably talc) were found; also two per cent of an unidentified organic substance. Quantitative determinations showed the composition of Citrophan to be: tetraiodophenolphthalein 40 per cent, sugar of milk 52 per cent, ash (including talc) 3 per cent, starch and undetermined 5 per cent. About twenty-five years ago, tetraiodophenolphthalein, the chief medicinal ingredient of Citrophan was exploited under the name "Nosophen" as an external and internal antiseptic. It has never attracted much attention in this country. Fangarine is sold (in the form of tablets) along with Citrophan. These the A. M. A. Chemical Laboratory found to contain phenolphthalein as its medicinal ingredient. It is evident that Citrophan is not a new discovery as claimed, and there is no evidence that Citrophan will reduce weight, except perhaps by disturbing the digestive functions. (*Jour. A. M. A.*, March 1, 1924, p. 734).

MISTURA CREOSOTE COMP. (KILLGORE'S) AND TABLETS CASCARA COMP. (KILLGORE'S).—The Council on Pharmacy and Chemistry reports that these products were found unacceptable for New and Nonofficial Remedies. Mistura Creosote Comp. (Killgore's) is marketed with the claim that each teaspoonful contains two minims of creosote "combined with Tonic Aromatics," but the identity and amount of the "Tonic Aromatics" is not declared. The Council declared the preparation in conflict with the rules that govern the acceptance of articles in that it is a mixture of semisecret composition which is marketed with unwarranted therapeutic claims and in a way that may lead the public to depend on it for the self-treatment of serious diseases. Tablets Cascara Comp. (Killgore's) are said to have the following composition: "Ext. Cascara 2 grs.; Podophyllin $\frac{1}{8}$ gr.; ext. Belladonna $\frac{1}{16}$ gr." The tablets were found in conflict with the rules that govern the acceptance of articles. The product is marketed under a name which is not descriptive of its composition in that the name indicates that it is a cascara preparation, yet the most active constituent is resin of podophyllum; the product is marketed with unwarranted therapeutic claims and the composition of the tablets is unscientific because there is no evidence that a therapeutic dose of extract of bella-

donna is useful with a suitable dose of resin podophyllum or of extract of cascara sagrada. (*Jour. A. M. A.*, March 8, 1924, p. 812).

SODIUM MORRHUATE IN TUBERCULOSIS.—Sodium morrhuate is the sodium compound (soap) of the fatty acids obtained from cod liver oil. Its use in tuberculosis has been advocated, but like other preparations proposed for the treatment of this disease, it has not been shown to have value. The reported trials make its lack of value probable. Sodium morrhuate has not been admitted to New and Nonofficial Remedies. (*Jour. A. M. A.*, 1924, p. 813).

THE RECTAL ADMINISTRATION OF ARSPHENAMIN.—The intravenous administration of arsphenamin requires some skill, especially in children and in the obese in whom the veins are not readily accessible. Attempts have been made, therefore, to develop other methods of securing the effects of the drug. Among these, rectal administration has found most advocates. Manufacturers, ever seeking novelties have used favorable reports to market suppositories of arsphenamin. In 1920, the Council on Pharmacy and Chemistry published a report on supsals, stating that the evidence for the rectal administration of arsphenamin was distinctly unfavorable. At present the medical profession is being circularized by the Swan-Myer Company in an endeavor to popularize the rectal administration of arsphenamin in the form of suppositories sold as arsphenoids. It is opportune, therefore, that Littman and Hutton, at the request of the Therapeutic Research Committee of the Council on Pharmacy and Chemistry, present a critical review of the literature and the result of clinical trials of the rectal use of arsphenamin. Since most advocates of the rectal administration of arsphenamin stress its importance in the case of infants, the investigators carried out their study with children with active symptoms of congenital syphilis. They used arsphenamin given by enterocolysis and also the supsals suppositories. The authors conclude that the clinical results were too feeble as compared with the intravenous or intramuscular method to warrant favorable consideration of the rectal administration. The investigators hold, moreover, that neoarsphenamin and sulpharsphenamin are now generally used by the intramuscular route in the treatment of syphilis in infants with results that are above reproach. (*Jour. A. M. A.*, March 15, 1924, p. 888).

"VITA-PEP."—Vita-Pep is nominally put on the market by the Vitamin Products Co., of New York City, but actually seems to be put out by the Vitamin Food Co., Inc., of Westfield, Mass. The president of the Vitamin Food Co. is one Eugene Christian, who calls himself a food specialist. He has offered a "Course in Scientific Eating" in which he showed his monumental ignorance of the subject he wanted to teach. Later, he was interested in an obesity treatment, the "Vaco Reducing Cup." Then he tried to sell oil stock to those on the sucker list. Then came the Vitamin Food Co., Inc., with Christian as president, and those on the sucker list were asked to buy stock in this company. In the earlier advertising, the product mainly stressed was "Vegex" which, according to the advertising matter, was a name that the Vitamin Food Co., Inc., had given to a British preparation sold across the water as "Marmite." Now comes the crowning achievement of the Vitamin Food Co., Inc.—Vita-Pep. The circular for this contained the statement in large letters that the preparation contains alcohol 16 per cent. According to the label, Vita-Pep, in addition to containing wine with an alcohol strength of 16 per cent, also contains pepsin, rennin and a concentrate of vitamin "B." The advertising circular states that Vita-Pep is a "Zestful New Health Tonic" which "Restores Youthful Vitality." According to the advertising, "Vita-Pep is pleasant to the taste and delightful in its effect—takes away that tired, rundown feeling and makes one feel vigorous, healthy and strong." What

is the United States Revenue Department going to do about it? (*Jour. A. M. A.*, March 15, 1924, p. 907).

FAT-FREE TINCTURE OF DIGITALIS.—Roth found that fat-free tinctures of digitalis had no advantages over the U. S. P. tincture of digitalis. On the contrary, he found some of these fat-free tinctures were so unstable that he advised manufacturers not to market them without stating the date of their manufacture on the label. "Fat-free" tincture of digitalis was introduced under the belief that the fat from the leaf produced gastric disturbance; but Hatcher and Eggleston fed the fat to cats and found that it had no emetic action whatever. After an investigation of the subject, the Council on Pharmacy and Chemistry concluded that there is no essential difference in action between "fat-free" tinctures of digitalis and the product official in the U. S. Pharmacopeia. (*Jour. A. M. A.*, March 16, 1924, p. 911).

DIGIFOLIN.—The claim is made for Digifolin that it keeps indefinitely. The available scientific evidence indicates that all digitalis preparations deteriorate with age. (*Jour. A. M. A.*, March 15, 1924, p. 911).

MORE MISBRANDED NOSTRUMS.—The following preparations have been the subject of prosecution by the federal authorities charged with the enforcement of the Food and Drugs Act: Montague's Petroleum Emulsion with Hypophosphites (J. Kyle Montague Medicine Co., Inc.), consisting essentially of an emulsion of petroleum oil, alcohol, water, gum, sodium and calcium hypophosphites and a trace of iron compound. Blacko Kidney Tablets (Blacko Medicine Co.), composed essentially of hexamethylenamin, methylene blue, boric acid, potassium nitrate, potassium bicarbonate and plant extractive material. Dr. Roger's Improved Rog-R-Pils (Digestive Chemical Co.), consisting essentially of iron carbonate, tansy oil, ergot extract and aloin. Fernet De Vecchi (Banfi Co., Inc.), containing essentially about 40 per cent of alcohol, 2.8 per cent of extractives from plant drugs, including aloes, and a small quantity of alkaloid. Dr. Link's Golden Tonic (Dr. Link Medicine Co.), consisting approximately of epsom salt 39 per cent, nitric acid 1 per cent, potassium citrate 1.5 per cent, iron sulphate 4 per cent, and water 54 per cent. Dawson Springs H and H Water (H. and H. Water Co.), the "Natural Water" containing 4 gm. to the liter and the "Concentrated Water" 2.26 gm. per liter of dissolved mineral matter, most of which was epsom salt. Oxidaze Tablets (American Oxidaze Co.), consisting essentially of sugar with potassium iodid and flavored with cinnamon, sassafras, camphor, menthol and wintergreen. (*Jour. A. M. A.*, March 22, 1924, p. 989).

HORSE HAIR AND HORSE ALLERGENS.—To prepare horse hair and horse dander allergens, 10 gm. of the finely divided hair or dander are extracted with 0.2 per cent sodium hydroxid solution. Hydrochloric acid is added to the filtered solution until the isoelectric point of the dissolved protein is reached. The precipitate is collected on a filter, washed with acetone and dried. To the dried precipitate are added 88 c.c. of hundredth-normal sodium hydroxid and the mixture is shaken thoroughly at frequent intervals for twenty-four hours. To this, 12 c.c. absolute alcohol is added. The mixture is shaken at intervals for twenty-four hours. It is then centrifugized and the supernatant fluid drawn off. This liquid represents 10 parts epidermal protein in 100 parts of solvent. This 1:10 solution is used to prepare weaker solutions by dilution with physiological solution of sodium chlorid. As a preservative, 0.5 per cent cresol is added. (*Jour. A. M. A.*, March 22, 1924, p. 991).

CANINE RABIES VIRUS.—Results of the single injection method against rabies in dogs have been reported from different sources. The U. S. Bureau of Animal Industry has been conducting experimental work on this subject and results indicate that the prophylactic vaccination has value which, however, is determined to a certain extent by the virus to which the animal is exposed. The use of the single injection vaccine in animals that

have been bitten is believed to be unwarranted at this time. The Hogyes, treatment of six doses, in animals bitten, has been used successfully for some time and the failures reported have been small. The use of the Hogyes vaccine together with the cauterization of the wound and the placing of the animal in quarantine for six months to a year seems to be the best method of treating such cases. (*Jour. A. M. A.*, March 29, 1924, p. 1066).

ALLONAL-ROCHE.—Allonal (The Hoffmann-La Roche Chemical Works, New York) is "Allyl-isopropylbarbituric acid-Phenyl-dimethyl dimethylamino pyrazolon." In the literature first sent out, it was stated to be a "compound" made by "chemically uniting allyl-isopropylbarbituric acid (37.5%) with phenyl di-methyl-dimethyl-amino-pyrazolon (52.5%) amidopyrin, i.e., in molecular proportions 1:2." Examination of Allonal tablets made in the A. M. A. Chemical Laboratory last year showed that, in water, the substance behaved as a mixture of allyl-isopropylbarbituric acid and amidopyrin and not as a compound. Furthermore, the percentages of the ingredients given were not in accord with the statement that they were in molecular proportions. The published reports on its use are favorable, but they apparently include no observations with controls. The evidence thus far available does not seem to prove (1) that "Allonal" possesses advantage over a mixture of allyl-isopropylbarbituric acid and amidopyrin, or even over one or other of its ingredients alone; (2) that the administration of allyl-isopropylbarbituric acid and amidopyrin in fixed proportion is desirable. The product has not been accepted for New and Nonofficial Remedies. (*Jour. A. M. A.*, March 29, p. 1066).

BOOK REVIEWS

INTERNATIONAL CLINICS. Volumes 2, 3 and 4. A quarterly of illustrated clinical lectures and especially prepared original articles. Edited by Henry W. Cattell, A.M., M.D., with the collaboration of Charles H. Mayo, M.D., and others. Cloth. J. B. Lippincott Company, Philadelphia and London, 1923 and 1924.

Briefly stated, these articles are essentially the last word and represent the most advanced thought. They are practical, well written articles and not long dissertations covering theoretical or impractical subjects. They are intended for the busy practitioner of medicine who wants to keep up with the advances of his profession but does not have the time or inclination to read voluminous and comprehensive books in order to secure that which, in the *International Clinics*, is given in a nutshell.

APPLIED PATHOLOGY OF DISEASES OF THE NOSE, THROAT AND EAR. By Joseph C. Beck, M.D., associate professor of Laryngology, Rhinology and Otology, University of Illinois College of Medicine. 280 pages with 268 illustrations including four color plates. Cloth. Price \$7.50. C. V. Mosby Company, St. Louis, 1923.

To those who are personally acquainted with the author this book on applied pathology in diseases of the nose, throat and ear will prove especially interesting and valuable through a knowledge that the results of the author's education, training and experience will be trustworthy when placed in a textbook. There is no like textbook in the English language, and, accordingly, Dr. Beck's work should prove especially valuable. He makes a strong point when he says that the fundamental object in the analysis of a case is the pathologic change presented. He therefore applies the pathologic entities to etiology, symptoms, diagnosis and prognosis, thereby arriving at a rational basis for treatment exclusive of the strictly surgical interventions.

The work is limited almost exclusively to the author's

personal experiences and he admits that many subjects will not appear either because he has had no personal experience pertaining thereto or because he can not offer any data as to pathology. Particularly is this true in acute conditions wherein it is but seldom possible to secure actual pathologic specimens, it being either surgically contraindicated or otherwise uncalled for.

In the study of pathologic changes the author has considered first each subject as shown grossly in the patient during examination and further corroborated by laboratory data, as x-rays, etc., or during operative procedure or treatment. Next, the gross specimen after removal, if such be the case, with subsequent microscopical examination. The subjects presented both in gross and microscopical sections, as well as in the photographs, are selected as typifying groups rather than individual cases.

The book is profusely illustrated and, all in all, is a notable addition to the number of highly scientific, though withal practical, books with which every otolaryngologist should be familiar. We can not speak too highly of it as a volume containing information that is touched upon but lightly by the works on otolaryngology now extant.

LOCAL ANESTHESIA. By Prof. Dr. Heinrich Braun, director of the Kgl. Hospital at Zwickau, Germany. Translated and edited by Malcolm L. Harris, M.D. Second American from the sixth revised German edition. 231 illustrations in black and colors. Cloth. \$5.00. Lea and Febiger, Philadelphia and New York, 1924.

Local anesthesia is becoming more and more popular, and very justly so in view of its many advantages as compared to general anesthesia. In fact, there are very few contraindications to local anesthesia for a major portion of the operative work that is done on the human body. As one of the editors well says, "Braun's *Local Anesthesia* has been the standard work on this subject since the appearance of the first edition in 1905." The general appreciation of this work is evidenced by the fact that six editions have been required, though but the third and sixth editions have been translated in the English language. This last edition represents a complete revision, with special attention being given to the contraindications and limitations of local anesthesia. As might be expected, the author has recommended some improvement in the technic, and he has devoted more attention to the subject of novocaine poison. The book is excellently illustrated and the technic of securing local anesthesia by the infiltration method is so clearly described and illustrated that it gives no room for misunderstanding. There is no better guide to be obtained and we have no hesitation in recommending the work.

PRACTICAL DIETETICS. By A. F. Pattee. Fourteenth edition completely revised. Cloth. 687 pages. Price \$2.60 net. A. F. Pattee, publisher, Mount Vernon, New York, 1923.

This is a very practical book, the popularity of which is attested by fourteen editions. As stated by the *Journal of the American Medical Association*, "It represents a carefully worked out compilation in which the editor has had the assistance of well-known authorities throughout the country. For the physician and nurse who wish to be abreast of the times in the dietetic control of disease, it is a reasonably priced, invaluable reference work."

AMERICAN ILLUSTRATED MEDICAL DICTIONARY. Edited by W. A. Newman Dorland, M.D. Twelfth edition, revised and enlarged. 1296 pages with 338 illustrations, 141 in colors. Flexible leather \$7.00 net; with thumb index, \$8.00. Philadelphia and London: W. B. Saunders Company, 1923.

From personal experience we feel justified in speaking in the highest terms concerning the value of this book as a ready reference dictionary, and the fact that it is

now in its twelfth edition indicates the general popularity of the work. It is of convenient size, flexible binding, and the last edition represents a complete revision. It is sufficiently comprehensive for the varied requirements of all classes of medical men. We unhesitatingly recommend it.

THE FEMALE IMPERSONATORS. By Ralph Werther-Jennie June (Earl Lind). Edited with introduction by Alfred W. Herzog, Ph.B., A.M., M.D., editor of the *Medico-Legal Journal*. Cloth. Price \$3.00. Publishers, New York Medico-Legal Journal, 1922.

This book has been published for restricted sale. It is sold only to physicians, lawyers, clergymen, teachers, writers, psychologists, sociologists and legislators. It is written by, and is an account of, the experiences of an androgyne, covering six years' career as an instinctive female impersonator in New York's underworld. It is published by the *New York Medico-Legal Journal*, presumably with an idea that androgynism may be better understood and that androgynes may suffer less unjustly. The book may fulfill a mission if its substance is digested properly by those for whom it is written, but we do not endorse the author's statement that the subject matter should be made a matter of reading for the general public. These unfortunates are a psychologic study and certainly deserve humane and just consideration, but their condition, habits and practices should not be paraded before the public.

PREMATURE AND CONGENITALLY DISEASED INFANTS. By Julius H. Hess, M.D., Professor and head of the Division of Pediatrics, University of Illinois College of Medicine. Illustrated with 189 engravings. Cloth. Price \$5.50. Lea and Febiger, Philadelphia and New York, 1922.

Vital statistics show that there has been an increase in premature births. Therefore, this book, which discusses premature and congenitally diseased infants, is timely and worthy of a place in our medical literature. The outstanding feature in the discussions of this subject is the necessity for proper prenatal care of the mother, thus eliminating a large group of premature births precipitated by either anxiety, overwork or by toxemia as well as by improper hygiene and improper diet. Many diseases, such as syphilis and nephritis, which are direct causes of premature birth, are amenable to treatment which will prolong the intrauterine life to the natural period, or at least to the point where prenatal development is compatible with post-natal existence. The author calls attention to the fact that the care of prenatal infants has not received the general attention of the medical profession which it merits. Proper handling of these infants demands a thorough knowledge of their many needs. In this connection the author discusses the preparation for the infant's reception, the attention which should be given to infants of low vitality, the attention which should be given to the premature as well as the full term infant and many other features that are of importance in lowering morbidity as well as mortality.

The book is well written and contains such an abundance of helpful suggestions that the work should be in the hands of every general physician as well as all obstetricians.

THE NURSERY GUIDE FOR MOTHERS AND NURSES. By Louis W. Sauer, M.D., Senior Attending Pediatrician, Evanston Hospital. Cloth. Octavo of 188 pages. Price \$1.75. C. V. Mosby Company, St. Louis, Missouri, 1923.

This is a well written, small handbook for mothers and nurses. It deals with the care and feeding of infants and discusses the essential details of feeding without giving or recommending various formulas and prescriptions.

(Continued on Adv. Page xx.)

Headquarters For the Endocrines

PARATHYROIDS, Powder Tablets, 1/10th grain—1/20th grain.

Indicated in tetany, chorea, eclampsia, paralysis agitans. These preparations are made from fresh glands carefully trimmed and desiccated in vacuum dryers at low temperature.

PITUITARY, Powder, 1 and 2 grain tablets.

ANTERIOR PITUITARY, Powder, 2 and 5 grain tablets.

POSTERIOR PITUITARY, Powder, 1/10th grain tablets.

PITUITARY LIQUID—standardized 1 c. c. and 1/2 c. c. ampoules.

CORPUS LUTEUM (true) Powder, 2 and 5 gr. tablets and capsules.

THYROIDS U. S. P.—0.2 per cent iodine in thyroid combination.

Powder, 2, 1, 1/2, 1/4 and 1/10 gr. tablets.

SUPRARENALIN SOLUTION 1:1000 in 1 oz. g. s. bot., cup stopper.

STERILE CATGUT LIGATURES—boilable and non-boilable, plain and chromic. Iodized—non-boilable. Nos. 000 to 4 incl.—60-in.

And the Endocrines generally. Booklet for physicians.

ARMOUR AND COMPANY

CHICAGO



WALLACE-SOMERVILLE SANITARIUM

Succeeding the Pettet & Wallace Sanitarium

MEMPHIS, TENN.

WALTER R. WALLACE, M.D.
WILLIAM G. SOMERVILLE, M.D.

FOR THE TREATMENT OF

**DRUG ADDICTIONS, ALCOHOLISM
MENTAL AND NERVOUS DISEASES**

Located in the Eastern suburbs of the city.
Sixteen acres of beautiful grounds.
All equipment for care of patients admitted.



Louisville Neuropathic Sanatorium

INCORPORATED

1412 South Sixth Street, Louisville, Kentucky

An ethical institution with modern equipment for the care and treatment of Mental and Nervous Diseases. Situated in residence portion of the city, yet quiet and retired. Rates furnished upon request.

W. E. GARDNER, A.B., M.D.

Medical Director

W. E. BENDER, M.D.

Resident Physician



BOOK REVIEWS

(Continued from Page 136)

THE HEALTHY BABY. By Roger H. Dennett, B.S., M.D., professor of Diseases of Children and Director of the Department in the New York Post-Graduate Medical School. Second edition, revised. Cloth. Price \$1.25. The Macmillan Company, New York, 1922.

This is a mother's book and tells just how to do best the ordinary, everyday things that every mother has to do for her child. It describes in minutest detail the daily care of the baby, and it leaves out a description of all but the simplest ailments on the ground that if the baby is sick, a well-trained physician or specialist in children's diseases, should be consulted. We commend the author for discussing the question of feeding in a very limited way, and we endorse the following statement, "Probably more harm has been done than can possibly be estimated by giving to mothers sets of complicated formulas which she tries to use herself. She experiments first with one and then with another until she ruins her baby's digestion." The author very properly emphasizes the recommendation that a good physician's help is necessary in solving dietary troubles.

MANAGEMENT OF THE SICK INFANT. By Langley Porter, B. S., M.D., and William E. Carter, M.D. Second edition, revised. 659 pages. Illustrated. Cloth. Price \$8.50. St. Louis: C. V. Mosby Company, 1924.

This is a very much needed volume and is unique in being, as far as we know, the first book of its kind in the English language. It deals exclusively with the peculiarities of diseases as they occur in infants. It has been said that babies are the easiest to treat, providing you understand the indications presented, and this book points out the way to such understanding. It is one of those practical and helpful volumes that no physician can afford to be without. The first two parts, embracing the first twenty chapters, consider all the various diseases and abnormal conditions affecting babies, and the third part, consisting of approximately two hundred pages, discusses methods of treatment, formulas and recipes, drugs used in the commoner ailments and, lastly, the symptoms and treatment of various types of poisoning. While part three is deserving of special commendation and worth the price of the entire book, yet the whole work is so thoroughly practical that it deserves the highest praise. It is well illustrated, most of the illustrations being original. Its popularity is attested by

the fact that within a few months this second edition has been necessary.

THE HEALTHY CHILD FROM TWO TO SEVEN. By Francis Hamilton MacCarthy, M.D., Assistant Professor of Diseases of Children, Boston University. 235 pages. Cloth. Price \$1.50. The MacMillan Company, New York, 1922.

This is a handbook for parents, nurses and workers for child welfare. It contains the fundamental principles of nutrition and physical care, including sections on child nature, training and education, and safeguarding the nervous system during the preschool years. When it is considered that more than half of the defects of adult life could have been prevented because they had their inception during the early years of childhood, one can understand how valuable are the teachings and conclusions found in a book of this type. The book forms a part of the great crusade now being carried on to build up a stronger nation of men and women and, which, in the last analysis, resolves itself into the question of proper care of our children during the first years of life.

APPLIED PSYCHOLOGY FOR NURSES. By Donald A. Laird, Assistant Professor of Psychology, University of Wyoming. 236 pages with 49 illustrations. Cloth, \$2.50. Philadelphia: J. B. Lippincott Company, 1923.

This book is a highly useful addition to Lippincott's Nursing Manuals. The author has been able to select from the vast literature of psychology those facts which are of most aid to nurses in understanding the patient. The text is divided into four parts. Part One is introductory in nature. Part Two presents the biological foundations of behavior. In Part Three the more practical results of the biological adaptations at the psychological level are presented. In Part Four certain aspects of mental hygiene, not taken up in other parts of the book, are considered. The author has managed to keep his feet on the ground and has avoided all controversial matter. Graduate as well as student nurses will find many profitable suggestions in this manual.

LECTURES ON DIETETICS. By Max Einhorn, M.D., Emeritus Professor of Medicine at the New York Post-Graduate Medical School and Hospital. 244 pages. Cloth. \$2.25 net. Philadelphia and London: W. B. Saunders Company, 1922.

This book is an expansion of a previous book giving lectures on dietetics as delivered at the New York Post-Graduate Medical School and Hospital. It represents advanced ideas concerning diet in health and disease and is an interesting and trustworthy authority on that subject.

Indiana State Medical Association

(Continued from Page 136)

ENTERTAINMENT COMMITTEE—John R. Newcomb, Indianapolis, Chairman; A. L. Marshall, Indianapolis; Ernest Rupel, Indianapolis; John Sluss, Indianapolis.

FINANCE COMMITTEE—Alfred Henry, Indianapolis, Chairman; Harry Langdon, Indianapolis; E. E. Padgett, Indianapolis; W. W. Garshwiler, Indianapolis; Robert Moore, Indianapolis.

HOTEL AND HOUSING COMMITTEE—A. E. Guedel, Indianapolis, Chairman; LaRue Carter, Indianapolis; A. B. Graham, Indianapolis; C. R. Strickland, Indianapolis.

GOLF COMMITTEE—W. S. Tomlin, Indianapolis, Chairman; H. H. Wheeler, Indianapolis; Goethe Link, Indianapolis; Thos. L. Sullivan, Jr., Indianapolis.

PUBLICITY COMMITTEE—Thos V. Keene, Indianapolis, Chairman; Norman Jobs, Indianapolis; J. H. Taylor, Indianapolis; Thos. J. Beasley, Indianapolis; C. S. Goar, Indianapolis.

MEETING PLACE COMMITTEE—Charles N. Combs, Terre Haute, Chairman; Wm. A. Doeppers, Indianapolis.

RECEPTION COMMITTEE—All members of Indianapolis Medical Society.

MILITARY COMMITTEE—J. R. Eastman, Indianapolis, Chairman; LaRue D. Carter, Indianapolis; W. M. Stout, Newcastle; Charles N. Combs, Terre Haute; Carl Habich, Indianapolis; R. G. Hendricks, Indianapolis; J. S. Robison, Winchester.

BUREAU OF PUBLICITY—W. N. Wishard, Indianapolis, Chairman; F. W. Cregor, Indianapolis, Secretary; David Ross, Indianapolis; J. H. Stygall, Executive Secretary.

ADVISORY BOARD TO BUREAU OF PUBLICITY—(Appointed by Council)—S. E. Earp, President Indiana State Medical Association; E. M. Shanklin, Chairman of the Council; A. E. Bulson, Jr., Editor Journal of the Indiana State Medical Association.

THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

ISSUED MONTHLY under Direction of the Council

ALBERT E. BULSON, Jr., B.S., M.D., Editor and Manager

OFFICE OF PUBLICATION: 406 West Berry Street, FORT WAYNE, INDIANA

VOLUME XVII

MAY, 1924

NUMBER 5

ORIGINAL ARTICLES

THE TREATMENT OF DIABETES MELLITUS WITH INSULIN*

JOHN A. MACDONALD, M.D.
C. L. RUDESILL, M. D.
INDIANAPOLIS

Through the courtesy of the insulin committee of the University of Toronto we have had the privilege of using insulin in the treatment of sixty-five cases of diabetes during the past year. The preparation used in all cases was that prepared under the name of Iletin, by Eli Lilly & Company of Indianapolis. We are gratified that in all essential details we have been able to confirm the beneficial effects of insulin reported by the Toronto Group. Our average daily dose in sixty-five cases was 12.9 units.

No attempt is made here to give a tabulated report of all of our cases since obviously this will be of greater value after the lapse of several months, when it is hoped that follow-up histories may be included.

Upon undertaking the study of the clinical application of insulin in diabetes in July, 1922, it became apparent at once that many difficulties would be encountered. As was foreseen, coincident with newspaper announcement of the discovery of a "remedy" for diabetes, a great number of applications for treatment was received. Many of these applicants believed that insulin was the long awaited cure for their disease.

It was necessary to explain that this preparation is not a cure for diabetes nor a substitute for previous methods of management, but that when used in conjunction with established dietetic methods it is of great value.

The result of this careful explanation coupled with the necessity for selection of cases has been that practically our entire capacity has been devoted to severe cases. However, a collateral benefit to the community has arisen from the awakened interest in the treatment of diabetes. A number of patients not in need of insulin have come for dietetic management and training.

Since no hospital in Indianapolis was equipped with personnel or facilities for the care and dietetic management of a large number of cases of diabetes, it became necessary at once to undertake the training of such an organization. The benefit to ourselves both in experience received and in gratification from the ready and intelligent co-operation of nurses can be appreciated only by those who have carried out similar work, and have assumed the very great responsibility involved.

It is obvious that in the management of a disease presenting such rapid and extreme variations as does diabetes, stereotyped methods must be discarded. However, certain fundamental principles are not to be lost sight of. These lend themselves very easily to routine application and are readily learned by patients of average intelligence. Some are tentative and may be confirmed or altered by further reports. We hope, however, that the methods of diabetic therapy given here will be of assistance to those about to begin the use of insulin.

The patients admitted to the hospital are subjected to the usual regime. They are weighed, measured and put to bed. The duration of the disease and previous diet are estimated as accurately as possible. Examination is made as to the clinical history and physical condition with determinations of the urinary and blood sugars and of the CO₂ combining power of the plasma.

The diet given is that meeting the basal caloric requirement calculated usually from the DuBois chart. Rest in bed is usually required until from 20% to 30% more food is taken than is required for basal maintenance when moderate exercise about the ward is permitted. In certain cases, however, it is found that moderate exercise increases utilization of sugar.

The construction of the diet is of the utmost importance. From the patient's standpoint palatability must be considered constantly, especially when greater caloric values call for large amounts of fat. Again, in the not infrequent gastrointestinal disorders of the very weak, severe type of diabetic, the large cellulose content of low grade vegetables cannot be tolerated.

The quantity of protein in the diet usually has been restricted to two-thirds gram per kilogram

*Presented in the symposium on "Diabetes" at the Indiana State Medical Association at the Terre Haute session, September, 1923.

of body weight for twenty-four hours, but is increased in children to one or one and one-half grams. These amounts have been shown by Marsh, Newburg & Holly¹:

First: To be sufficient to replace normal katabolism provided the total caloric requirement is fulfilled. Limitation of protein to amounts necessary to maintain nitrogen equilibrium is made desirable as formulated by Wilder because the ingestion of protein actually throws a large amount of sugar on the metabolism, 58 per cent by weight being convertible into glucose.

Second: The relatively high specific dynamic action of protein produces an undesirable elevation of the metabolic rate, and

Third: An excess of protein exerts a specifically depressing effect on the ability of the organism to utilize glucose. In a recent communication Sherill², however, reports experimental work which denies any especially powerful glycosuric effect of protein either on the ground of specific dynamic or toxic effects. Many clinicians have recently insisted upon larger amounts of protein. Certainly the patients find the diet more palatable under carbohydrate restriction when liberal amounts of protein are permitted. We have been unable to demonstrate diminution of insulin effect following increase of protein ration and will probably in the future use more liberal amounts of protein.

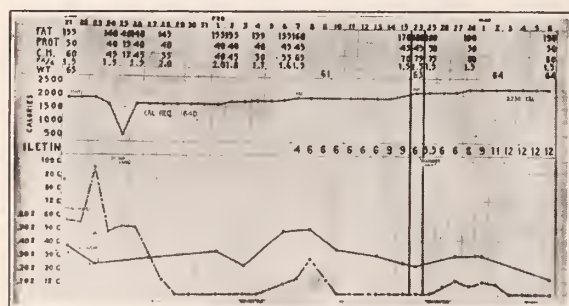


CHART NO. 1.

Diabetic Patient No. 33—a male, age 32—moderately severe diabetes of five months' duration. Preliminary examination January 21st to 26th. Prompt desugarization on high fat diet at basal requirements on a safe ratio without glycosuria. Small doses of insulin, two units three times a day desugarized but did not lower blood sugar to normal. A throat infection caused recurrence of glycosuria, necessitating larger dose of insulin. Former tolerance not acquired during his hospitalization. Effect of infection on diabetes is quite noticeable.

The remaining caloric need of the patient must be obtained from carbohydrate and fat. Restriction of carbohydrate estimated in terms of the total glucose is a well established principle. It is based upon the fact that sugar as a stimulant to the sugar burning mechanism produces reduction of tolerance through fatigue of that mechanism. It becomes readily apparent, therefore, that restriction of protein and carbohydrate compel us to supply the remaining food requirement in fat.

In order to avoid ketosis the quantity of fat

must not exceed a certain ratio to the total glucose of the diet. This ketogenic-anti-ketogenic ratio has been shown by Shaffer³ to be two molecules of fatty acid to one of glucose. Various margins of safety below this ratio are recommended (Wilder⁴—1.65:1, Woodyatt⁵—1.5:1, and Campbell⁶—1.3:1.)

We have employed as a rule the optimal diet of Woodyatt, but have been unable to use higher ratios with success. Individual peculiarities of the patient must at times be consulted and aversion to fat in a few instances has required readjustment of the diet. While we have desired to determine in all cases the basic tolerance for glucose the majority of our patients have been of such severe type that having insulin at command it would have been unjust from economic reasons to temporize with intermediate diets. A balanced diet is given in amount to supply basal maintenance and approximate glucose utilization determined by the twenty-four hour urinary waste.

Infections must be taken carefully into account in planning the diet. In the presence of such complication as with anorexia, diarrhea, fatigue or excitement, tolerance may rapidly fail and ketosis of severe degree rapidly appear.

When by the method already described the diet has been properly constructed in terms of carbohydrate protein and fat, the menu is readily made up. The simplest foods are used, variation of meals and palatability depending upon the ingenuity of the dietician and as often as not upon the patient. The patient is given the usual instruction in dietetics and is trained in the use of insulin. Special emphasis is given to the hypoglycemic reaction.

Patients who, during the preliminary period of observation, give promise of rather high glucose tolerance are frequently kept on increasing diet for a further period. If able to take a diet sufficiently above maintenance to permit of normal activity without glycosuria or hyperglycemia, insulin is not given. These patients, about twenty in number, have been discharged after the usual training and will be observed regularly for sustained tolerance. It is probable that in many of these cases time might have been saved by using insulin during the period of desugarization.

Patients from whose history or preliminary observation we are able to predict inadequate control by diet, those in severe acidosis or coma or with surgical complications, are given insulin at once.

Before proceeding with the method of application of insulin brief reference should be made to certain factors in the pathology of diabetes. This is excellently stated by Banting, Campbell and Fletcher⁷ as follows: "In this disease we now know the fundamental defect is the failure of the pancreas to produce an adequate amount of insulin. As a result there is a failure to store carbohydrate and glycosuria occurs. The lack of

sufficient carbohydrate in the process of combustion is the cause of failure to burn fats completely and ketosis and ketonuria ensue. In most cases a diet properly balanced in its proportion of protein, fat and carbohydrate enables the body to get the maximal beneficial effect from the limited supply of insulin. In certain cases additional insulin is required. Normally the secretion of insulin is probably a continuous process greater after the ingestion of carbohydrate. In the artificial administration of insulin it is clinically impossible to imitate this process."

Insulin is given hypodermatically and should be injected directly into the subcutaneous tissues with as little tension as possible. In cases requiring immediate effect (coma) the intravenous route should be used. Injections should never be made into muscle tissue and the skin should receive as little trauma as possible.

The earlier preparations of the extract were in some instances very irritating and induration with occasional necrosis was reported. We have been free from any serious complication of this kind and have observed no indurations of greater degree than those frequently observed following injections of digitalis or other drugs. Flexor and extensor surfaces of both arms are used alternately. Severe protein sensitization has been encountered in but one case, that of a greatly emaciated man of fifty, who exhibited severe urticaria, swelling and tenderness of the joints and moderate fever.

Insulin is prescribed in units and is supplied in two strengths, one containing ten units per cc., the other twenty units per cc. The latter concentration is preferable in patients requiring larger doses. With the knowledge that one unit of insulin increases glucose combustion, one gram to 1.5 gram with considerable consistency, it is possible after determining the daily excretion of glucose on a known diet to estimate the quantity of insulin needed to render the patient free from sugar. For example, a patient who is steadily excreting 40 grams of glucose may be expected to come nearly under control with a daily dose of 25 units of insulin. However, it is unwise to begin with such doses as a routine, rather it is better to begin with one-half or less of the calculated dose and gradually increase as the individual's response to the extract is learned. Severe reactions have been known to occur after injection of but one unit.

The plan of procedure in different clinics varies from full doses given once daily to minimum doses three times daily, regularly increased. It should not be forgotten that the duration of insulin effect is usually from six to twelve hours, the maximum effect occurring at about the end of the fourth hour, and that cases in extreme inanition may be already hypoglycemic as in the reports of Woodyatt⁸ and Williams.

The method of administration and advancing dosage of insulin which we have usually employed in cases of ordinary severity is as follows: The examination of the patient together with blood and urinary examinations already described is carried out. A diet is constructed to fulfill the basal requirement with a (F.A: G) ratio of about 1.5:1 except in severe cases of acidosis when

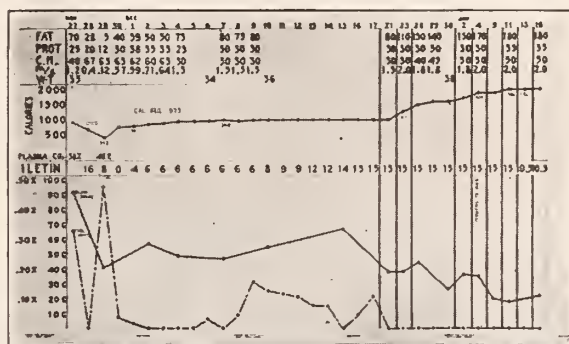


CHART NO. 2.

Diabetic patient No. 18—a female, age 48—very severe diabetes of three years' duration. A case that had been termed a "total diabetic" by a prominent diabetic authority in this country. Upon admission had a marked lipemia, a moderately severe acidosis, a hyperglycemia of 450 mgm. per 100 cc. and a daily sugar waste of 65 gm.

Illustrating (1) the prompt relief from acidosis.

(2) The desugarization and lowering of blood sugar by the prolonged use of small doses of insulin while the patient's diet was kept at her caloric requirement.

(3) The gain in tolerance such that 3.1-2 units three times daily kept her sugar free and her blood sugar normal while her diet had been raised to 200% of her requirement upon admission.

(4) The general improvement in the case, a bed-ridden invalid became ambulatory and moderately active.

(5) High fat tolerance without ketosis.

temporarily a very low ratio is used until digestive ability can be learned. The effect of diet is checked by the glucose excretion and by the blood sugar at twenty-four and forty-eight hours. If desirable the blood sugar is taken again at seventy-two hours. During treatment blood sugar observations are made at intervals of from two to five days, and at once, of course, if evidence of hypoglycemia appears. If insulin treatment is decided upon the patient is given from three to five units usually three times daily, fifteen to thirty minutes before meals, until increasing tolerance is apparent when the dose is divided between the morning and evening. If the glycosuria persists the dosage of insulin is increased by amounts depending upon the general condition and upon ketosis, usually one unit per dose, until glycosuria and ketonuria have disappeared. The average daily dose in 59 cases has been 12.9 units.

The diet is then increased in carbohydrate and fat, preserving the same ratio, usually by steps of 110 calories until either through recurrence of glycosuria or increasing blood sugar further insulin need is apparent. This process is continued until the desired diet for the individual is attained. If rapid or excessive fall in blood sugar occurs the succeeding dose of insulin is omitted

until diet increase can be made. The fact of disappearance of sugar from the urine should in itself demand caution in continuance with insulin. Time may be saved by advancing both food and insulin simultaneously but a considerable experience should precede the use of this method.

No attempt to secure rapid gain in weight has been made. It has been kept steadily in mind that the objective in the use of insulin is to burn only sufficient glucose to permit the use of adequate food for maintenance at normal activity. A maximum degree of rest is thus obtained for the pancreas and those patients who by diet restriction alone can simply exist are brought by insulin to useful and happy lives.

It now seems evident that under the more prolonged rest of the pancreas, through the more gradual increase in diet, improvement in tolerance for carbohydrate is secured more surely.

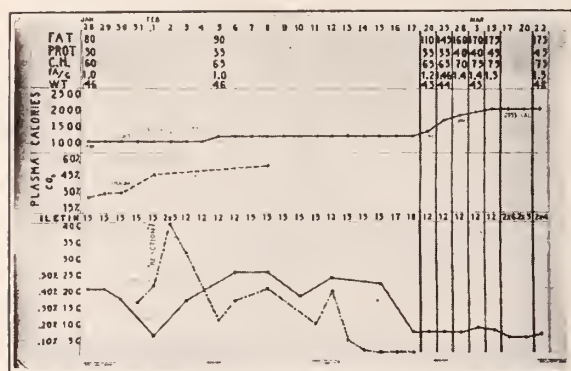


CHART NO. 3

Diabetic patient No. 36—female, age 31—moderately severe diabetes rendered acutely ill by a large ischio-rectal abscess. On a submaintenance diet with a low ketogenic-anti-ketogenic ratio and on 5 units of insulin three times daily, she was relieved from acidosis as indicated by the Plasma CO_2 curve, more slowly than in the usual case of severe acidosis (see chart 4), but more effectively than with pre-insulin therapy, for without insulin her recovery would have been impossible. She also regained tolerance and left the hospital a picture of health and happiness without glycosuria and with a normal blood sugar. A remarkable incident in her case happened. She had a definite reaction, although mild, the evening of the day that her twenty-four hour specimen showed 22 gm. of sugar and her eleven o'clock blood sugar was 114 mgms per 100 cc.

We have repeatedly been gratified to observe patients desugarizing on low maintenance diets with very moderate dosage of insulin, become able to tolerate steadily increased amounts of food until after three or four weeks full exercise requirement was reached without increase of insulin. It is more remarkable that at times it became necessary actually to reduce the dosage.

The Hypoglycemic Reaction. As would be anticipated from so powerful an agent as insulin there is danger from overdosage with resultant hypoglycemia. In its simplest form this hypoglycemic reaction is seen when following the injection too long a time elapses before food is given. The patient then experiences a sense of nervousness and tremulousness with or more usually without visible tremor. This is often ac-

companied by extreme hunger or goneness. The reaction may stop with this or be cut short by taking carbohydrate. This degree of reaction occurs as the blood sugar falls to about .07%. The level at which reaction occurs is said to be constant for that individual. If still greater fall in blood sugar occurs objective symptoms appear. Sweating may be profuse, pallor and flushing are seen, and in children especially tachycardia is common. The subjective symptoms may increase with appearance of anxiety, excitement and emotional disturbances. Tremulousness may increase and various muscular incoordinations appear. As a severe manifestation, unconsciousness may supervene occurring usually as the blood sugar falls to .03%. We have had only one case of this severity, the patient recovering following the administration of glucose.

Having experienced one hypoglycemic reaction patients are able to recognize the earliest symptoms and often are of great help in determining the best time for injection or even the most efficient dose at the difficult period when blood sugar is approaching normal. The reaction occurs usually about two hours after injection of insulin, but we have observed several instances at longer intervals, probably as a result of delayed absorption of food. Night reactions are reported as long as eight hours after the evening meal, probably to be accounted for by insulin remaining after assimilation of food.

The Treatment of Hypoglycemia. Restoration of sugar to the blood is imperative and brings immediate relief from symptoms. Sugar is given at once on detection of the reaction and is usually given in the form of orange juice or two or three lumps of sugar. Experienced patients promptly recognize the condition and ask for sugar or a glass of milk. In more serious degrees of hypoglycemia and in unconscious states, epinephrin 1 cc. of 1-1000 solution is injected, followed by glucose which is better given intravenously owing to uncertainty of absorption from the stomach. If immediate intravenous administration is not possible, oral administration or the injection by stomach tube must be resorted to.

Diabetic Acidosis and Coma. With an understanding of diabetic acidosis it would be predicted that any agent capable of bringing about the oxidation of glucose in the presence of ketone bodies will be of benefit to a patient so affected. That this is true is evidently demonstrated by graphic charts which are to be presented. The relative ease and surprising accuracy with which the patient may be deketonized is perhaps best illustrated by a brief report of one of the most severe of our cases.

A woman thirty-one years of age, whose diabetes had been discovered six months previously, was admitted to the hospital. Acidosis had probably existed for five days, having arisen,

as is so frequently the case, following infection. In this case there was an enormous ischio-rectal abscess. Emaciation was extreme, the heart rapid and weak and advanced dehydration was evident. The breath was heavy with acetone, hyperpnea was extreme, ocular tension was very low and drowsiness marked. Impending coma was evident.

Blood examination showed sugar .40%, and plasma CO_2 was 20 Vol. %. The twelve-hour specimen of urine contained 7% of sugar with strong acetone and diacetic acid reactions.

The patient was placed upon a diet containing total glucose 85 grams and 1080 calories with F. A:G. ratio of 1. Water was given in abundance and five units of insulin were injected every six hours. At the end of twelve hours respiratory distress was greatly relieved, and after twenty-four hours there was no apparent increase in ventilation. At the end of forty-eight hours after the use of seventy units of insulin there was a slight hypoglycemic reaction, the blood sugar was .114%, and the plasma CO_2 was 46 Vol. %. The course following was uneventful, the ischio-rectal abscess healed as rapidly as in non-diabetic patients, and at the end of fifty-six days she returned home a picture of excellent health, on a diet of C.75, P.45, F.175, total calories 2055, which was 50 per cent above basal requirement, total glucose 119. grams.

But few examples of applied scientific medicine are so spectacular as is the effect of insulin in diabetic coma. Unfortunately the application cannot be reduced to a formula but requires the most careful study of the individual's case and time is not available now for its discussion.

We have not as yet employed the enormous doses of insulin frequently used. On admission the patient is given from 10 to 30 units which is repeated every two to four hours, as indicated by the clinical response and plasma CO_2 . Since no practical method is known for rapid estimation of the amount of available sugar in the patient's body, glucose is given by mouth or intravenously in an amount estimated to prevent hypoglycemia, usually 20 to 30 grams, following each injection of insulin. However, excessive amounts of glucose should not be given through desire to guard against hypoglycemia.

Sodium bicarbonate in moderate amounts is given by mouth or intravenously. Administration of large amounts of water by every available method is insisted upon and water should be given intravenously as normal salt solution at once and followed immediately by hypodermoclysis and proctoclysis. Effect of insulin therapy in coma should be constantly followed by blood sugar and CO_2 observations, though absence of facilities for this should not forbid the use of insulin in coma, since glycosuria usually persists as a sufficient guide until the comatose state has improved.

While the alkali reserve and ketonuria are well

established as indicators of the degree of acidosis, we have found, as have other observers, that the most important factors in prognosis are the duration of the coma and severity of infection, if any, previous to the institution of treatment.

Surgical complications of diabetes should be intensively prepared for operation and should be treated during the post-operative period under the principles already stated.

In conclusion we wish to emphasize that the remarkable effects of insulin in diabetes should not divert us from the primary importance of a properly balanced diet. Proper dietetic management of a patient with diabetes can be attained

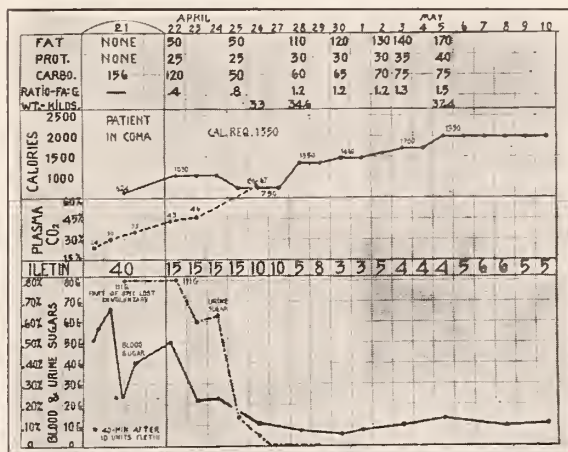


CHART NO. 4.

Diabetic patient No. 50—male, age 14—a moderately severe diabetes made comatose by an acidosis resulting from engorgement of a rich carbohydrate diet. The patient was unconscious 6 hours and semi-comatose 24 hours longer. A prompt relief from acidosis is shown by the plasma CO_2 curve. Conservative use of small doses of insulin guarded by glucose as orange juice and sugar with abundance of water made the patient safe from acidosis. After out of danger a rapid desugarization was accomplished by a low diet with low ketogenic-anti-ketogenic ratio and five units of insulin three times a day. After getting him under control he proved to be a less severe case than we first thought and continues to remain sugar free on small doses of insulin.

in most patients through investigation and training, possible only in a well-equipped institution.

We desire to acknowledge the kindness of Dr. G. H. A. Clowes and of Dr. A. L. Walters, without whose unfailing co-operation it would have been impossible to carry on this work, and to express our thanks to Eli Lilly & Company, whose generosity has made insulin available to a number of patients who were unable to purchase it.

BIBLIOGRAPHY

- (1)—Marsh, Newburgh & Holly.—*Arch. Internal Medicine*, January, 1922.
- (2)—James W. Sherrill.—*Jour. Metabolic Research*, January, 1922.
- (3)—Shaffer, P. C.—*Journal Biological Chemistry*, 1921.
- (4)—Wildier, Russell M.—*Journal A. M. A.* June 11th, 1922.
- (5)—Woodyatt R. T.—*Archives Internal Medicine*, August, 1921.
- (6)—Campbell, W. R.—*Can. Medical Association Journal*, June, 1923.
- (7)—Banting, Campbell & Fletcher.—*Jour. Metab. Research*, Vol. 11, Nos. 5-6.
- (8)—Woodyatt, R. T.—*Jour. Metab. Research*, Vol. 11, Nos. 5-6.

DISCUSSION

DR. CHARLES P. EMERSON (Indianapolis): After so complete a consideration of the subject we would best limit ourselves to the discussion of a few points illustrated by the experience of our clinic. We first would like to emphasize the very wise advice Dr. Porter has given us relative to our attitude toward the general public. We must, however, not injure the reputation of insulin by an over-enthusiastic attitude. Insulin is perhaps the most wonderful discovery of this decade. It is the fruit of brilliant research work and its value is greatly increased because of the great number of diabetics of the world who will benefit. But one of insulin's great enemies may be its too enthusiastic admirer. Many claims are being made which cannot be substantiated, and on these as their vantage point our enemies will attack the whole subject. It might be wise not to speak of insulin as "the internal secretion" or "the active principle" of the pancreas. It certainly is a very active principle and priceless remedy derived from the pancreas, and that is enough to say. This is not belittling it, and if later we find that it is not a physiological product although a priceless remedy, our enemies will say, "You see, you are wrong again." Let me illustrate. No one here doubts the great value of pituitrin, and yet those who have a right to speak with authority now doubt that the pituitary body has any proven function or any internal secretion; yet pituitrin is just as wonderful as before. And we have said a great deal about adrenalin which isn't true, and some things about thyroid extract also. And yet these remedies are just as valuable as ever. But our unfounded physiology has discredited our splendid therapy and we have given a lot of dangerous ammunition to our enemies. Let us say that we believe that insulin is the most valuable remedy produced during the last decade, and we can rest assured that the results will justify that claim.

Just what do we accomplish by means of insulin? Simply this. In past years we could make a severe diabetic sugar-free as quickly and keep him as completely sugar-free as today with the aid of insulin, but these patients, although sugar-free, were starved and unhappy, weak and inefficient, mentally and physically, subject to infections and in danger of coma. Now these same patients, sugar-free, and on a much better diet, are stronger, happier, more efficient, able to do their work and in much less danger from complications. We use the starvation method much as before but by means of insulin obtain a much better margin in diet.

In our wards we use insulin more as a step-ladder than as a crutch. If a man uses a crutch he uses it with every step he takes, but by means of a step-ladder he climbs to a higher level and abandons the ladder for a while. We believe that

the cases of moderate diabetes can, by means of repeated periods of very low diet, alternating by courses of insulin, so increase his glucose-tolerance that he can leave the hospital on ample diet, sugar-free and without need of insulin.

Another conviction we have is that too much emphasis is now being placed on the large amount of fat in diabetic diets. It is our impression that the fat-rich diets are popular because remarkably successful on patients racially accustomed to a high fat diet. Dr. Woodyatt recommended a 1:1.15 ratio; Strauss a 1:1.5-1.7, while Dr. MacDonald finds 1:1.2 best, and that is our experience when treating Anglo-Saxon patients. We should take the racial as well as the family inheritance into consideration, and we cannot lay down any general iron-clad rules.

Again, we have made it a rule that unless there is some special indication, no interne shall give insulin to a man whose diabetes began after he was forty-five years of age, no matter how much he would like to have this "new wonderful remedy" tried on him. The reason for this is, in the first place, that very few of the patients who develop diabetes after forty-five really need insulin. If we give it to them their delight in the "new and wonderful" will lead them to give the credit for their improvement to insulin. Then, later on, some attractive but worthless remedy will do as well and the value of insulin in the cases who need it will be greatly discredited. Such is the history of many antimedical movements.

Insulin treatment certainly should be begun in a clinic. Dr. MacDonald deserves great credit for the work he has done in organizing here an efficient diabetic clinic with trained workers. And yet patients need not stay for more than one to three weeks. We can get them out in a few days provided you can take the blood sugar at repeated intervals each day. In other words, in determining their therapy we can learn almost as much from the three meals as from three days if we make careful blood and urine tests after each meal. That is the great advantage of a clinic. For illustration, a very sick boy, 18 years of age, now under our care, could not be made sugar-free with 60 units a day, 20 before each meal. But he is sugar-free if given 25 before breakfast, 20 before the noon meal, and 10 before the evening meal.

The importance of the presence of diacetic acid in the urine is not sufficiently emphasized. The general practitioner cannot detect the CO_2 content in the plasma, and not often the blood sugar, but he can the diacetic acid, and this is a fairly accurate index of proper insulin dosage. If diacetic acid disappears quickly after insulin our fears of coma are greatly relieved.

And, finally, we can see little reason for attempting by large doses of insulin to "bring

down the blood sugar" after the urine is sugar-free. The blood sugar, fourteen hours after the last meal, is determined partly by the use the tissues are making of it, but largely by the amount of glycogen stored in the liver and muscles, and the rapidity this can be mobilized. If the urine is sugar-free there is no advantage in forcing down the blood sugar by insulin during the day. Granting that there is a glycogen reserve in the body, then the blood sugar curve, like the temperature curve, is an index of the patient's condition, and to be watched rather than directly controlled.

DR. C. A. SELLER: (Hartford City): I want to emphasize a proven fact which I consider the most important part of this symposium, and on which not enough emphasis has been placed. This fact is that dietetics is the paramount issue in the treatment of diabetes regardless of the new remedy, insulin. Dr. Edlavitch makes the statement, "providing the doctor knows his diet." I want to say to you that the physician of today is more than fifty years behind in his dietetics.

It is probably true that one must know the theoretical fat-carbohydrate ratio as has been shown, but one also must know more about dietetics and the nutritive equilibrium it produces in the diabetic if one is going to treat the patient successfully. Dr. Edlavitch has told us that there are approximately one million diabetics in the United States. Think what that means in waste if untreated—approximately ninety tons of sugar per day.

DR. J. H. WARVEL (Indianapolis): The medical profession owes much to Dr. Banting, the discoverer of insulin. His work is all the more appreciated when we review the literature on diabetes and note the many others who have been unsuccessful in their attempts to produce a remedy for this rather common and dreaded disease. Much praise is also due to Eli Lilly & Company for their many refinements of the product, standardization and volume production.

Insulin is a wonderful adjunct for the treatment of diabetes, but like many of our most valuable drugs, it is quite dangerous in the hands of the inexperienced. This accounts for the rather slow distribution of this product to the medical profession at large. If given in overdose, it has been known to produce a coma due to hypoglycemia. This is as marked as the coma of acidosis, but is much easier and more quickly controlled. On account of this reaction insulin is used to best advantage in institutions where the diet can be carefully and accurately controlled. Here one can also obtain quickly the blood and urine chemistry necessary to guide the physician and prevent these reactions. When once the optimum diet and dosage are determined, it is quite safe to treat the patient in his own home. It is also possible to treat a case of diabetes in

the home from the beginning, providing the physician has a nurse on the case who understands the calculation of diets, weighing the foods and testing of urine specimens.

Many of the cases of diabetes which we encounter do not need insulin. I refer to quite a few of the arteriosclerotic and obese types. Their hyperglycemia and glycosuria can be controlled on a diet which is greatly above their basal requirement.

The cases which do need insulin are as follows:

First. Those patients who have had diabetes for some time, have lost weight and strength and are unable to be made sugar-free on a requirement diet.

Second. Those acute cases, which have no knowledge of an existing diabetes until some secondary infection or even coma makes its appearance.

Third. Those patients who for financial reasons find themselves compelled to do different kinds of labor, and who cannot keep themselves sugar-free on plus 20-50% above their requirement diet.

Fourth. Those patients who have had diabetes for years, and in the presence of some secondary infection pass into diabetic coma. Here insulin proves itself most valuable in the control of hyperglycemia and acidosis. If the coma is not of too many hours' duration the patient can be saved.

Fifth. Those diabetic patients who demand surgical interference. Some surgeons refuse to operate upon a diabetic for any condition. Many recall cases in which they wish that they had refused to operate because of the following acidosis and sometimes death. Insulin used in conjunction with other measures has proved itself a wonderful agent in preventing these sequelae.

Sixth. Insulin is of inestimable value in helping control diabetic gangrene. Even if too far progressed for cure, it will be of great value following amputation or other operative procedures.

Great stress must be laid upon the training of the diabetic. Every patient while taking insulin treatment in a hospital is taught to calculate his own diets. He is also instructed in the weighing and preparation of his food, and is compelled to master the technique of giving his own hypodermics of insulin. He is shown how to make his own urine tests for sugar and acid bodies. He is told the dangers of an overdose of insulin, the symptoms of such a condition and how to remedy them quickly. He is warned of the dangers of the common infections, how to prevent them, and to report to his physician at once if they occur.

Drs. MacDonald and Rudesill are to be praised for their untiring effort and their great success in the treatment of diabetes and its many complications.

DR. I. C. BARCLAY (Evansville): To me the three most gratifying points in insulin treatment

are, first, the relief and gratification of the undernourished patient who has been on diabetic treatment and who has been unable to take a minimal diet, who is losing weight, and, as Dr. Emerson says, is constantly starved. Another gratifying feature is the freedom with which emergency operations and other operations can be performed. For instance, an acute appendix comes in and you find sugar in the urine, and the urine full of diacetic acid. Now, with the use of insulin, the only thing we have to insure is that the patient gets well from his operation. Another gratifying feature is the case which comes in with acidosis or in coma. So many of these now can be relieved.

I was glad to hear Dr. Emerson explain why it is that with the insulin treatment we can get the urine so quickly sugar-free, and yet the blood sugar stays high. He explains that by saying that the liver is a reservoir which holds a certain quantity of glycogen. I have made the mistake myself of trying to get blood sugar down to normal by giving more and more insulin, even after the urine was largely free. I think there is a good deal to be learned by a great many of us in regard to insulin treatment. From clinics comes the word that diabetics on insulin treatment are being allowed to eat everything—white bread and anything they want. As the essayists have emphasized, insulin is not a treatment to be given and dietetic treatment discontinued. Insulin is merely a means of building up the patient's tolerance a little higher, and when the patient is discharged from the clinic, practically all the moderate cases, and certainly all the mild cases can be discharged on dietetic treatment alone.

DR. W. D. GATCH (Indianapolis): It is beyond me to discuss the medical aspect of this subject, but I think there is something to be said about the surgical side of it.

We have lately had two cases of diabetic gangrene, both very septic, and both taken care of by Dr. MacDonald. I believe the recovery of either of them would have been impossible without insulin. In one case we amputated the right leg for septic gangrene of the foot. The patient was doing well until the fourth day, when she developed gangrene in the other leg. We amputated above the knee, and after a stormy convalescence, she recovered.

The diabetic is a bad surgical risk—the tissues do not heal. They behave like the tissues of a cadaver. The acidosis, or whatever it is, prevents the formation of connective tissue. These patients endure infections badly. In one of these cases just a little collection of fluid in the amputative stump caused the most alarming reaction.

In these cases I believe good results also depend upon attention to a few details which I would like to enumerate. In the first place, in the preoperative care of gangrene there should be no

water used about the part. Use nothing but alcohol or dry dressings. Water, or liquids of any kind outside of alcohol, will convert a dry and comparatively harmless, aseptic gangrene into a septic gangrene, which is very dangerous. The greatest care should be observed in preparation for the operation and to every detail of the technique, because infection is extremely harmful to these people. Another point is to avoid hemorrhage. These people endure loss of blood badly. A tourniquet may be applied, but this should be done lightly. I have seen bad results from a tourniquet applied too tightly in a person with sclerotic arteries.

DR. JAMES J. MOORHEAD (Terre Haute): This symposium has been particularly interesting to me. In the Archives of Internal Medicine (June, 1922), Landes, Garrison and myself published an extensive study of experimental diabetes. The work was done at the Hull Laboratories of Physiological Chemistry and Pharmacology, University of Chicago. Although we did not find the hypothetical internal secretion of the pancreas—this was our problem—a careful analysis of the results will convince any one that we were in close proximity to the discovery of insulin. Our research doubtless stimulated the successful investigators.

The defense of animal experimentation by Dr. Porter was gratifying. As you all know, the progress of medicine and surgery depends chiefly on vivisection. Such work, as Dr. Emerson emphasized, should be performed in the proper place by competent individuals.

DR. J. A. MACDONALD (closing): I want to thank the audience for its very patient attention to my long discussion of the subject. I do not devote all of my time, by any means, to diabetes, but when I get to thinking about it I become so enthusiastic that it is hard to know where to stop.

One thing comes to my mind in closing, and that is, that when a patient is in coma the transportation to a distant hospital for treatment is a great danger. It has been a great relief to my mind that the Toronto authorities have released insulin to the medical public, because now insulin can be transported to the patient and the patient saved that exertion, fatigue and loss of time which may be the determining factor in the life or death of that individual.

THE GENERAL CLINICAL MANAGEMENT OF DIABETES MELLITUS*

B. M. EDLAVITCH, M. D.

FORT WAYNE

Diabetes is a relatively common disease. In this country alone it involves a million people¹. How is a widely scattered multitude of such proportions to be properly advised and regulated?

*Presented in the symposium on "Diabetes" before the Indiana State Medical Association at the Terre Haute Session, September, 1923.

Would it be possible or desirable for the few special clinics and the comparatively few specially experienced internists to reach all of our diabetics? There can be no question but that the control of diabetes, as of most all other diseases, must devolve on the general practicing physician. He is the one who should diagnose and treat diabetes, but he should be prepared to treat the diabetic as competently as he would want to be treated had he the disease himself. If the general profession could be made to take this attitude toward our diabetics, much more real help would be given the latter than is the case at present. The truth is that even today, as Wilder² states, "the majority of physicians are in a woeful state of ignorance on the subject." To what he says may be added that there is, also, too much guess-work, too much of the arbitrary and unscientific exhibited by many who are attempting to manage diabetes.

It is unfortunate, to say the least, that so little progress has been made by the rank and file of the profession in preparing themselves to treat diabetes skillfully. Now, more than ever, since the introduction of insulin, a clear understanding of the problem presented by the diabetic is demanded of the clinician. He who has the knowledge to work out successfully this problem will find the clinical management of diabetes no more difficult, generally speaking, than the management of many other types of disease.

The diabetic is unable to metabolize carbohydrates as the non-diabetic can, so that his blood becomes surcharged with an excess of sugar, hyperglycemia, and sugar is excreted in his urine, glycosuria. Unless his carbohydrate metabolism has broken down completely, the diabetic can utilize a certain amount of ingested carbohydrate without hyperglycemia and glycosuria developing. This is the diabetic's tolerance, and so long as he maintains himself on a carbohydrate intake within that limit his blood sugar will be normal, and his urine will be sugar free. The simplest and quickest way to determine this tolerance is to deduct from the total carbohydrate consumed in 24 hours the amount of sugar passed in the urine during that period. The total carbohydrate intake is made up not only of the starch and sugar in the food, but in addition, of 58 per cent of the protein, and of 10 per cent of the fat. For example, in a diet of 50 grams of protein, 130 grams of fat and 40 grams of carbohydrate, the protein yields 58 per cent of 50, or 29 grams of carbohydrate, the fat yields 10 per cent of 130, or 13 grams, and the carbohydrate constituent being 40 grams, the total carbohydrate consumed amounts to 82 grams. If the diabetic on such a diet excretes a total of 25 grams of sugar in the 24 hours, obviously the carbohydrate tolerance is 57 grams per day.

This determination having been made, planning

the proper diet becomes comparatively easy³. The amount of protein to be allowed is generally estimated at 2-3 gram per kilogram of body weight for an adult, and 1 gram for a child. Assuming the weight to be 66 kilograms (145 lbs.), the daily protein allowance will be 44 grams. This amount will be adequate to keep the patient in nitrogen equilibrium. The amount of fat to be allowed depends on the carbohydrate tolerance. The complete oxidation of 2 to 3 or 4 grams of fat requires one gram of carbohydrate, so that with a tolerance of 57 grams, it will be quite safe to allow 130 grams of fat daily. The amount of carbohydrate as such that may be allowed will be the total carbohydrate tolerance minus the carbohydrate derived from the protein and from the fat. The protein-derived carbohydrate is 58 per cent of 44, or 25 grams; that derived from the fat is 10 per cent of 130, or 13 grams; so that the carbohydrate constituent of the diet will be 57 grams, the full tolerance, minus 38, the sum of these two, or 19 grams per day.

Thus, a properly balanced diet low in protein and carbohydrate and relatively high in fat, can be worked out to meet the needs of each case, providing the physician knows enough about foods and their values to plan correctly. Without such knowledge he is merely going ahead blindly, and such procedure in diabetes is very apt to be harmful. If he expects to manage diabetes successfully he must have a clear idea of the requirements of each case, and he must be able to meet these requirements. Moreover, in order to obtain the most satisfactory results it is necessary for him to teach the diabetic the fundamentals the latter must know in order to co-operate intelligently. Already many special clinics are giving a course of instruction to their diabetic patients. The general physician can and must do what these clinics are doing along this line. Unless he does he cannot get the co-operation he should have from the patient, and invariably he will find the course of his diabetics rather discouraging.

Too much stress cannot be laid on the importance of blood sugar examinations in the diagnosis and treatment. A definite diagnosis of diabetes ought not to be made from the urinary examination alone, yet it probably more frequently is than not. Glycosuria may be associated with a normal blood sugar, and may be uninfluenced by food, as in the obscure cases of renal glycosuria. Transient glycosuria may be found because of overindulgence in carbohydrates, alimentary glycosuria, in spite of a normal tolerance of carbohydrates. Hyperglycemia, as well as glycosuria, must be demonstrated to avoid error in the diagnosis. In the treatment, watching the blood sugar is necessary because (1) the blood sugar may become relatively high without glycosuria appearing, the result of a change in the renal

threshold for sugar, leading to a rather embarrassing situation unless recognized promptly, and (2) the blood sugar, on the other hand, may unexpectedly become too low from the use of insulin, leading to a very serious, perhaps even a fatal, result.

Potential diabetes, or prediabetes, is receiving increasing attention, and its importance clinically is being emphasized more and more. Certainly the early recognition of prediabetes is of prime importance to the patient, for an ounce of prophylaxis then may well be worth a ton of cure later. There need be no clinical manifestations that may serve to arouse suspicion, yet the blood sugar may be found to be not quite within the normal limits, there may or may not be transient glycosuria, and a test diet will reveal lowered tolerance for carbohydrates. Two such cases may be briefly cited.

Case 1. Mr. S., realtor, aged 39, had been troubled rather frequently during the preceding two years with boils, recurring singly and in numbers. A course of vaccine had been tried, but it proved quite useless. On Feb. 25, 1923, ingestion of 100 grams of glucose in a fasting state caused hyperglycemia and glycosuria at the end of both the first and second hours. Moderate restriction of carbohydrates enabled this man to become free of his chronic skin infection and to remain free up to the present.

Case 2. Mrs. A., aged 25, a moderately obese office worker, referred on Feb. 8, 1923, had been troubled for about a year with a gradually progressing eczematoid dermatitis of the right foot. Examination revealed the skin lesion and the moderate obesity as the only abnormalities. A test meal of 100 grams of glucose yielded hyperglycemia and glycosuria at the end of the third hour. Moderate restriction of carbohydrates was advised in addition to local applications, and the prompt favorable therapeutic response was extremely gratifying.

Whether it will be possible by reduction of carbohydrate intake to prevent potential diabetes from spontaneously progressing to definite diabetes, it is too early yet to say. However, the clinician must be on the alert to detect these prediabetics and to warn them of their lowered carbohydrate tolerance, particularly when confronted with a case of unknown etiology in which a disturbance of carbohydrate metabolism might be a possible etiological factor.

Mild diabetes can be controlled without difficulty by diet alone. When the tolerance is not too low it entails no hardship on the part of the diabetic to keep within his limit of daily carbohydrate allowance. Food can be allowed in sufficient quantity and variety to make up a diet not too monotonous, yet adequate to meet the requirements, thereby insuring the faithful co-operation of the patient, which is, after all, the *sine qua non* in the control of the disease. In the practical

management of diabetes one of the main sources of trouble is the matter of bread. Only strictly starch-free bread, made from strictly starch-free flour, should be allowed, except in the very mildest cases. Gluten bread, so generally recommended by practitioners as well as others, contains starch, and is not so very much better than ordinary bread. It is surprising how often a diabetic will be told by one to eat only gluten bread, by another to eat only rye bread, when, as a matter of fact, he should eat neither, but only strictly starch-free bread.

Insulin ought not to be considered in the treatment of mild diabetes. The mild diabetic, properly fed, can do just as well without insulin, and, so far as we know now, has really nothing to gain by taking it. In view of the present day enthusiasm for the use of insulin a word of caution against the possible injudicious use of it must be emphasized. Quite recently it was astonishing to hear from a mild diabetic who came under observation that she had been told by two clinicians, each of broad general experience, that insulin would be necessary, although no attempt had been made to determine the tolerance, and not even a blood sugar estimation had been made.

Two cases may be briefly cited to show the efficacy of diet alone in mild diabetes.

Case 3. Mrs. W., a widow, aged 52, who presented on Feb. 27, 1921, some of the characteristic symptoms of diabetes, was found to have considerable sugar in the urine, and a blood sugar of 0.33. After desugarizing her and gradually building up the diet, her tolerance was found to be approximately 50 grams, the tolerance at that time being estimated on the basis of the carbohydrate constituent only, and she was instructed how to keep within this limit. In the period of more than two and one-half years since that date she has been examined at frequent intervals, and has shown neither hyperglycemia nor glycosuria at any time.

Case 4. Mr. W., a clerk, aged 23, who was found some six months previously with glycosuria, when examined on July 19, 1923, showed a blood sugar of 0.16, and a faint glycosuria. Study revealed a surprisingly good tolerance, about 75 grams of carbohydrate, with 60 grams of protein, and 160 grams of fat per day. This patient, although obliged to eat all of his meals in restaurants, which is a definite handicap for a diabetic, understands the problem and co-operates splendidly, so that he manages to get fairly liberal meals without exceeding his tolerance.

In the management of severe diabetes diet, again, is the most important factor. So long as it is possible to control the condition by dietary regulation alone, that is the method to adopt. In the severe cases, however, the tolerance is so low, and the variety of food so limited, that frequently strict adherence to the diet is not observed, and as

a result the course of the severe diabetic often does not run smoothly. Furthermore, in some cases there is a spontaneous progressive fall of the tolerance, until there results the so-called "negative balance," so that no matter what the patient eats glycosuria results. Heretofore these very severe cases were practically hopeless. Now, however, the immediate outlook for them is very bright, for insulin has made it possible to arrest the progressively downward course of these cases. How long this control can be affected, and how much time can thereby be added to the life of the severe diabetic, future clinical experience will tell.

A serious drawback to the use of insulin is the fact that it must be taken by subcutaneous injection. It is not a cheerful experience for the patient to be compelled to take one or more such injections a day, with the prospect of having to continue this treatment the rest of his life. Therefore, it is certainly inadvisable to begin insulin treatment unless the disease cannot be controlled by diet alone. Insulin should not replace diet in the treatment of severe diabetes; it should supplement it, and only when such supplementary treatment is distinctly indicated.

The stormy, downward course of severe diabetes and the problems it brings up may be illustrated by the following brief clinical record.

Case 5. Mrs. C., housewife, aged 44, referred on July 19, 1922, had already been under treatment for diabetes for at least six months. On that day her blood sugar was 0.24; her urine contained sugar, albumen, acetone and pus. Ureteral catheterization revealed no pus from either kidney. Her tolerance was so low that the carbohydrate constituent of the diet had to be kept down to 15 grams per day. For a while she co-operated splendidly; then she took things into her own hands, disregarded all caution, and pinned her faith on a patent medicine recommended by a friend alleged to have been cured by it. In spite of eating liberally of everything, she continually lost weight, and seemed to be doing very badly in every way. Finally, toward the end of the year, she returned under observation, but not until she had gotten into a critical condition from acidosis. Insulin could not be obtained for clinical use at that time, so massive doses of sodium bicarbonate were given, contrary to Joslin's custom, and a good recovery from the acid intoxication followed. However, her over-indulgence in food evidently had played havoc with her tolerance, for soon she had no positive tolerance whatever, but, on the contrary, she had reached that so-called condition of "negative balance." Accordingly, about five months ago treatment with insulin had to be started, and so far the result has been very gratifying. At present she requires a daily dosage of 20 to 25 units. (Iletin-Lilly being used). It is no exaggeration to say that this insulin is just as necessary for her

now as the food she eats, that without it her condition would become critical, with the inevitable outcome following in a comparatively short time.

CONCLUSIONS

1. Diabetes should be treated by the general physician.
2. A properly balanced diet, low in protein and carbohydrate and high in fat, should be supplied to meet the requirements of each case.
3. Study of the blood sugar is essential in the diagnosis and treatment.
4. Potential diabetes ought to be detected early, and should be looked for more frequently than is now being done.
5. Mild diabetes may be controlled by dietary measures only.
6. Severe diabetes should be treated by diet, supplemented by insulin when diet alone fails to control the disease.

BIBLIOGRAPHY

- (1) Joslin, E. P.: Diabetes and Life Insurance, Proc. Assn. Life Ins. Med. Directors of N. Amer., Knickerbocker Press, N. Y., 1922.
- (2) Wilder, R. M.: Insulin, Med. Clin. of N. Amer., 7, 1, (July), 1923.
- (3) Kellogg, J. H.: A Simple Method of Approximating the Proper Ration for a Diabetic Patient, J. A. M. A., 81, 823, (Sept.), 8, 1923.

THE DISCOVERY AND DEVELOPMENT OF INSULIN*

ARTHUR WALTERS, M.D.
INDIANAPOLIS

The symptoms and signs of diabetes mellitus have been recognized for centuries, but it was not until 1775 that sugar was identified in the urine of such cases by Mathew Dobson, who evaporated four pounds of urine and obtained a whitish cake of sugar which weighed a little more than four ounces. During the next one hundred years little new light was shed on this disease, but in 1889 Von Mering and Minkowski, with the aid of Naunyn's observation, discovered that total removal of the pancreas in dogs produced glycosuria. Later it was shown that if only a small portion of the pancreas were left *in situ*, glycosuria did not result. The further fact that ligation of the pancreatic duct, with resulting atrophy of the acinous tissue of the pancreas and non-destruction of the Islands of Langerhans, did not produce glycosuria, lead to the theory that these island cells are the seat of a hormone or ferment which controls carbohydrate metabolism. The finding by Opie of definite pathological changes in the cells of the Islands of Langerhans in the pancreas of a diabetic who had died of tuberculosis still further confirmed this theory.

With these facts in mind many efforts were made to improve the therapy of diabetes by giving fresh and dried pancreas and extracts of

*Presented in the symposium on "Diabetes" before the Indiana State Medical Association at the Terre Haute Session, September, 1923.

pancreas made in many ways. None of these attempts met any practical success such as had been obtained by the use of thyroid in hypothyroidism.

During recent years marked advances in the dietetic treatment of diabetes have been made, due principally to the work of Allen, Joslin and Woodyatt, but in the severe cases the best dietetic treatment serves only to prolong a vegetative existence.

DISCOVERY OF INSULIN

Knowing the above facts, Dr. Frederick G. Banting, a young Canadian physician, conceived a new avenue of approach to the problem of obtaining a therapeutically active extract from the pancreas. In November, 1920, while reading on this subject, it suddenly occurred to him that previous failures in this field had probably been due to destruction of the island hormone by the proteolytic enzyme present in the pancreas and pancreatic extracts, and that one way to obtain an extract, free from this destructive enzyme, would be to ligate the pancreatic duct, permit atrophy to take place for several weeks and then remove the pancreas and extract it with suitable solvents. With this idea in mind Dr. Banting went to Toronto and presented his idea to Dr. J. J. R. MacLeod, Professor of Physiology at the University of Toronto. In May, 1921, he began work on his problem in the Toronto laboratories and had associated with him Mr. C. H. Best, who was then a sophomore medical student. Mr. Best has co-operated throughout the whole investigation and development of this project, and his work and ideas have been both brilliant and productive.

The first step taken by these workers was to ligate the pancreatic ducts in several dogs, and at the end of about ten weeks these animals were sacrificed and the degenerated or atrophied pancreas removed. Extracts made of this degenerated tissue, which contained normal cells of the Islands of Langerhans, were then injected into dogs that had been rendered diabetic in the meantime by total removal of the pancreas. These diabetic dogs, showing hyperglycemia and glycosuria, were given intravenously, several cubic centimeters of the extract prepared from the island tissue. The excretion of sugar was immediately lessened and the blood sugar lowered, showing that an extract containing some principle influencing carbohydrate utilization had been obtained.

This first injection was given on July 30, 1921, and it was not until many further experiments on laboratory animals had been carried out, and an active extract obtained from the pancreas of slaughter-house animals, that these investigators seemed warranted in attempting an injection into a human diabetic. This first injection was given January 11, 1922, and produced the expected results in lowering blood sugar and lessening sugar

excretion. Dr. J. B. Collip, an associate in this investigation, originated the method of preparing these extracts so that they could be used therapeutically.

DISTRIBUTION OF INSULIN

From this time the practical problem became one of clinical investigation, but the workers were handicapped in not having sufficient material, or material of sufficient purity to use in human cases. Attempts to manufacture the product on a larger scale were more or less a failure, and in May, 1922, Eli Lilly & Company was invited by the Toronto investigators to assist in the production and purification of this endocrine product. By August, 1922, improved methods of purification were worked out in the Lilly laboratories so that a product relatively non-irritating could be obtained, but only in comparatively small amount. At this time small amounts of material were furnished to six of the leading specialists in diabetes in the United States, and to the clinical group at Toronto, and to the clinic organized in Indianapolis where results could be observed at first hand. As further progress was made, larger and larger amounts became available, and other internists were given this material gratis for clinical test. In this way it was soon confirmed that a specific in the treatment of diabetes had been found and the best methods of its administration were determined.

Inasmuch as it was known that improper use of this extract could produce harmful effects, even to the point of endangering life, the authorities at Toronto, who controlled this material, limited its distribution chiefly to physicians who had had considerable experience in the treatment of diabetes and who had adequate laboratory and hospital facilities at their command where the cases could be closely observed and controlled. Cases treated in such hospitals were returned to their home physician and insulin supplied to this physician for their continued treatment. In this manner an ever increasing circle of physicians became familiar with the use of this product. The amount used became so large by January, 1923, that it was found necessary to place a price on the product, and it was accordingly sold at, or slightly below, the actual cost of production.

During this early stage in the development of insulin, all available material that could be made was immediately shipped for clinical use. The increased use and demand exceeded the supply until the spring of 1923, when large scale apparatus was placed in successful operation and the material was then made more generally available to the medical profession. It was not, however, until after publication of full clinical reports of its use had been made that the Toronto group felt it would be safe to make it available to all members of the medical profession. At present any physician may obtain insulin by

assuming responsibility for its use, which naturally is the province of the physician no matter what medication is being used.

At present the supply of insulin is sufficient for all the diabetic patients in the country. The price has been greatly reduced from the original cost, and still further reduction may be expected in keeping with the policy of the manufacturers to make this necessary item as generally available as possible.

MANUFACTURE OF INSULIN

Fresh pancreas from any animal will yield insulin. As a matter of fact, the glands now used are from beef or swine. It is essential that the glands be fresh or preserved from autolysis. They are ground, placed in alcohol of about 50 per cent strength, and then filtered. The filtrate is chilled to allow the fat to separate, and is again filtered. This solution is then concentrated by evaporation at a low temperature, more fat being separated by this procedure. Alcohol is now added until the mixture contains eighty per cent alcohol, at which point many impurities separate out while the insulin remains in solution. By adding more alcohol the insulin is then precipitated and filtered out of the alcoholic solution. This active principle is purified by dissolving in distilled water and again precipitating by the addition of sufficient acid to bring the solution to the isoelectric point. By repeating this procedure a very pure and highly active product is obtained.

PROPERTIES

Insulin gives the biuret test for protein, dialyzes slowly, and does not coagulate on boiling with acetic acid. It is a proteose or mixture of proteoses. It is precipitated by picric, nitric and trichloroacetic acid, and precipitates at the isoelectric point, which is PH 4.7. It contains thirty-six to forty-one per cent of carbon, six to eight per cent of hydrogen, eighteen to twenty per cent of nitrogen, one-half of which is aminoacid nitrogen. It contains sulphur, but no phosphorus or halogen. It is absorbed easily by Lloyd's Reagent, charcoal or filter paper. It is stable to acids and easily destroyed by alkalis. It is stable to air or oxygen, but rapidly destroyed by active oxidizing agents, such as hydrogen peroxide. It is also destroyed, but rather slowly, by reducing agents. It is digested by the proteolytic enzymes pepsin, trypsin or papain. Insulin, Lilly, or Iletin, as at present marketed in solution in ampules, is stable, and does not lose strength when protected from high temperatures.

STANDARDIZATION

Insulin is standardized both by animal and clinical test. For the former rabbits are used, and the minimum amount of extract which produces sufficient lowering of the blood sugar to cause convulsive symptoms is taken as a measure of its activity. The strength of the product is measured in units. One unit may be defined as

one-third the minimum amount of insulin required to produce convulsions when injected subcutaneously into a two-kilogram rabbit. In order to obtain concordant results, large numbers of rabbits must be used in testing each batch. Samples of each batch, after being thus tested, are again tested on rabbits at Toronto University, and following this, are submitted to certain well-controlled diabetic clinics where they are tested on diabetic cases. When these tests are finished and the results tabulated, final dilution of the product is made and it is then ready for general distribution.

The present unit of insulin will enable a diabetic patient to utilize one to two grams of glucose, and this knowledge is of great help in regulating the early or beginning dose of insulin in any given case. The purity of the product and its great activity may be judged by the fact that one unit of insulin contains approximately 0.01 mg. of nitrogen, or about 0.05 mg. of total solids. The present product of insulin is supplied in two strengths†—one containing ten units in each cc., and the other containing twenty units per cc. Where large doses are required the more concentrated extract is preferable.

ADMINISTRATION

Insulin is given usually by subcutaneous injection. It may be given intravenously, but this is rarely necessary. Like all other pancreatic extracts it is ineffective when given by mouth—even though huge doses be administered. In making the injections the needle should be well into the subcutaneous tissues so that no perceptible welt or lump is produced by the fluid. Patients giving their own hypodermatic injections find it best to make these in the subcutaneous tissue of the thigh or abdomen.

In conclusion, it may be well to point out that the rapid and successful application of this new principle to the treatment of disease and the saving of lives is the result of team work, co-operation between the scientific laboratory, the bedside clinician, and the factory.

INSULIN IN SURGERY

MILES F. PORTER, M. D.

FORT WAYNE

The writer begs to commence this short paper with a digression because he believes that the importance of the subject matter of the digression warrants it.

The history of the discovery of insulin emphasizes again the importance of animal experimentation to progress in medicine, which progress spells constantly diminishing morbidity and mortality to the human family. Our well-meaning

†Ampules containing forty units per cc. are now available.

*Presented in the symposium on "Diabetes" before the Indiana State Medical Association at the Terre Haute Session, September, 1923.

but misguided and ignorant friends, the anti-vivisectionists, would, if they had their way, stop this progress. The success of the anti-vivisectionists is in proportion to the ignorance of the people. Hence every member of the medical profession should avail himself of every opportunity to inform the laity of the importance of animal experimentation to the progress of both preventive and curative medicine. In this effort at enlightenment the story of insulin will prove interesting and convincing. Insulin prevents, or strongly inhibits, the formation of acetone bodies in the diabetic, it diminishes the fat content of both the liver cells and the blood. In diabetes the sugar of the blood is increased and the glycogen in the liver diminished, and insulin will restore them to or above the normal level.

Insulin prevents the development of hyperglycemia and glycosuria in experimental diabetes.

Administration of insulin prevents the hyperglycemia of ether anesthesia.

Insulin given to a diabetic patient will increase his tolerance for proteins, fat and carbohydrate to the point of meeting the requirements of nutrition with moderate exercise.

Perhaps the most brilliant results in the clinical experimentation with insulin have been attained in the treatment of diabetic coma and acidosis.

That diabetic patients are peculiarly susceptible to infection has long been recognized as an established fact.

Postoperative acidosis in the non-diabetic seems to disappear promptly under insulin treatment.

Insulin increases the sugar tolerance in both diabetic and non-diabetic patients. Administration of insulin to diabetics establishes the nitrogen balance.

Exactly how insulin acts is an extremely interesting question, but a discussion of it by the writer on this occasion would be out of place.

In the light of the facts enumerated and which seem to be well established it would seem that surgeons are warranted in assuming that in insulin we have a remedy the intelligent use of which will materially add to our surgical victories and diminish our surgical defeats.

The use of this agent will render feasible operations of election on diabetics which, before we had insulin, were considered impracticable and will render emergency surgical procedures in these patients less dangerous.

It will diminish the mortality and the morbidity from post operative acidosis.

In insulin also the surgeon has a remedy of promise in the prevention and cure of infections. It is quite within reasonable bounds to hope that by the use of insulin the surgeon may reduce the morbidity and mortality which heretofore obtained in non-diabetic patients with low carbohydrate tolerance—goitre patients for instance.

Obstetrics also offers a promising field for the use of insulin. The increased utilization of glucose caused by the administration of insulin and the protein saving properties of carbohydrate would seem to indicate a large range of usefulness for insulin both in the surgical and medical fields.

Like all potent remedies insulin is dangerous and should never be given save by one thoroughly familiar with it, and it should be remembered that the danger from insulin is greater in the non-diabetic than in the diabetic.

OBSTETRICS IN GENERAL PRACTICE*

F. A. MALMSTONE, M.D.

GRIFFITH, INDIANA

The ideal obstetrical practice is in the hospital, where every convenience is found and able assistance is rendered by competent nurses and internes, where the room is large enough to avoid crowding and the "Delivery Bed" does not sag, where linen is clean and sterile and towels and sponges are found in abundance, and where relatives' well meant but misdirected tears of sympathy do not weaken the courage of the patient.

In general practice all is different. The home is anything from a comfortable dwelling, with moderate supplies, and few conveniences, to a hovel, devoid of even the necessities of life, where cleanliness is unknown and the term "sterile" has never been heard. The writer has in mind one place where the home was little less than a woodshed. Dogs and chickens on the floor, five or six small children in one bed, no towels or anything cleanly whatever, and still a nice healthy robust boy was born with no after infection. Another case, a good family where the husband, who was a locomotive engineer, was out on his run, the mother's labor pains began at midnight, nothing ready in the home, even the fire had gone out. When the doctor arrived the first thing to do was to build a fire, get some hot water, look for some cloths and clothes for the baby, which were difficult to find in that condition. Also in this case a normal baby was born and nature was kind—no after infection.

It is in such cases where the creative ingenuity of the accoucheur is brought into play. Where, when the doctor is called late in the third stage of labor, he hurriedly transforms some newspapers into a "Kelley Pad" and covers same with a sealed sterilized oiled paper sheath, which he has learned always to carry in his O. B. grip. When the baby has been delivered, and a search has been made in vain for clothes with which to cover him, when the last of the towels from the instrument bag has been used, the "Bright Little Cherub" is wrapped snug and warm in the doctor's gown. In truth: as one great teacher has

*Read before the Lake County Medical Society, February 14, 1924.

said, when it seems as if you had come to the end of your rope and can do nothing more, then is the time you must think of, and do, something else.

The cases however are not all discouraging. The majority of expectant mothers engage their doctor early enough to receive valuable advice for themselves, both physically and mentally, also to give time for several urinalyses, which in my practice is always insisted upon.

It is a valuable practice to gain the complete confidence of the mother early, before the first symptoms of backache even ensue, also to encourage them to engage help and assistants other than their relatives. In one case the assistant was one of the best mothers, who when some towels and some hot water were needed, just cried and cried and thanked the Lord that the baby was born. The doctor could get no help whatever. In another case a good aunt, who was a splendid nurse as far as help and cleanliness were concerned, proved inefficient, for when a nice ten-pound baby boy was born, she enlarged on the fact of what a nice large baby it was, and it did not concern her at all that the infant was not breathing. After working strenuously with hot and cold water applications the baby soon breathed normally.

General Principles: Diagnosis. Most women consult their physician first as to backache and menstrual irregularities. A large part of pelvic condition is the result of parturition and naturally the patient consults the doctor who is to confine her. Therefore it is on the family physician that the burden of proper primary diagnosis and management of gynecological conditions rests.

Errors in diagnosis and practice occur in every man's endeavor. These errors, however, should not be common, and when we have diminished the errors in diagnosis, the errors in practice will have reached the vanishing point.

How shall we attack the problem of diagnostic errors? First, by the realization that, in every case a complete working diagnosis is necessary. Two requirements are necessary, time, and moderate experience. Time, perhaps the larger factor, must be spent first in a complete history, and second in a thorough physical examination. A moderate experience is necessary to interpret the story presented by the history and physical findings.

Diagnosis is always worth an effort. A high average of correct diagnosis may be maintained by anyone who does himself and the patient justice. A thoughtful appreciation of the history and a proper use of the direct methods of examination at our disposal are the keys to success. It is necessary continually to remind ourselves that our patient is not a pelvis or a uterus, but a human being who often has extra pelvic as well as pelvic ills. The classic symptoms of pain, hemorrhage and discharge are truly gynecologic,

yet may all originate in purely extra pelvic causes.

The history is relatively of more importance than the physical examination, and there is no excuse for its omission. The ever-popular ovarian pain is a myth. The enormous cyst is unaccompanied by pain. The much-blamed small cystic ovaries are very doubtful factors in the production of pelvic pain. Lacerations of the cervix, and even carcinoma, cause no pain while confined to the cervix. Distended tubes or large myomatous uteri cause no pain unless occasionally by pressure, or more frequently by associated adhesive peritonitis.

All the acute infectious diseases, particularly influenza and typhoid, may affect the menstrual function, often causing temporary disturbance, and occasionally sterility and pelvic infections. Essential dysmenorrhea, and functional amenorrheas, and menorrhagias of uncertain origin are found with absolutely no demonstrable pelvic pathology. Many women with ptosis of the stomach, colon or kidney drift into psychoneurosis with pelvic symptomatology perhaps, but without pelvic lesion. We are all familiar with the menorrhagia of chronic nephritis, and menorrhagia of chronic nephritis and arteriosclerosis, yet such a diagnosis must carefully rule out a host of pelvic possibilities. Just as general causes may originate pelvic discomfort, so can pelvic disease cause the gravest constitutional sequelae, such as cardiac degeneration associated with fibromyoma of the uterus, secondary anemias and metastases.

Disorders of Menstruation: Dr. E. S. Clow, Medical Inspector of a large school, has had the opportunity of obtaining details over five years on the menstruation function in 1,200 pupils. Most of these boarders, the girls from 9 to 21 years, are in sound health, and the children of educated parents in easy circumstances.

Regular Menstruation	646	Girls	53.8%
Irregular	554	"	46.1 "
No Pain	877	"	73. "
Pain	294	"	24.6 "
Severe Pain	29	"	2.4 "
Incapacitated	64	"	5.3 "
They indulged in Baths	281	"	23.4 "
They indulged in Games	488	"	40.7 "

It appears to Dr. Clow that the practice of taking baths, and more especially exercises, has reduced the frequency of congestive dysmenorrhoea and constipation.

Relation of Thyroid to Menstruation: Menstruation cannot possibly occur without the activity of the thyroid. Too much thyroid secretion may cause profuse or too frequent menstruation. In female cretins hypothyroidism in school girls has been markedly reduced by state medication and inspection. Many of the states now have state medication where school girls from puberty to twenty years of age are fed sodium iodide for

two weeks in the spring and two weeks in the fall, which reduces this condition wonderfully.

Uterine Hemorrhage: The cardinal feature of the menstrual phenomenon usually has been assumed to be the marked pelvic hyperemia. However, a blood filled endometrium in itself cannot explain such an extensive migration of blood elements into the uterus as is found. Then it is necessary to look to a physiologic factor, which increases the permeability of the blood vessels and allows of a massivic exodus of blood elements. Of importance here are the nerves of the pelvis vasomotor nerves, and also the higher centers play an important part. Both mechanical and functional factors play a role, ectopic pregnancy, and fibroids. Bleeding is very frequent both at puberty and the menopause.

The Ovary: The function of this organ is the secretion of egg cells, from the corpus luteum. When there is an endocrine deficiency, the patient complains of severe headache during and before menstrual times. Dr. Abbott has controlled these headaches by administering five gr. capsules of corpus luteum t.i.d.

Infection in Women—Gonorrhoea: The only reason for taking up this subject here is the fact that the obstetrician must deal with it at delivery. The author had one interesting case where a couple married late in life, and the mother was nearing the menopause became pregnant, and engaged her doctor early. She had been suffering years with bile trouble and probably gall stones, also very poor teeth, much pyorrhea. She was instructed to have nothing done in an operative way while pregnant. About the sixth month the doctor learned that she had been taken to the hospital for an operation for gall stones. Being intensely interested in this family, and that they should have a living child which probably was their last chance, the author went to the hospital on the day of the operation and said to the surgeon that of course he knew that she was pregnant. "Why, no," he said, "One of my assistants examined her and sent her in for operation." The result was she was kept in the hospital for a few days for passive treatment and sent home without an operation. In due time the author delivered this woman, in a very difficult confinement, on account of her age. Everyone was happy in the birth of a beautiful nine-pound boy. In two or three days, in spite of argyrol to the eyes, the baby developed a terrible ophthalmic infection. The doctor made daily calls for twenty-two consecutive days. In cleansing and flushing those eyes, all that could be seen was a redness and no eye-balls whatever. The author was picturing the horrible part of a young life brought into this world without sight. After two weeks' treatment with one per cent AgNO_3 , the mother said to me, "Oh, yes, doctor, the baby can see. When you are not here, he

looks up at me with his beautiful blue eyes." I thought, "You poor deluded creature, that baby has not a vestige of sight." Picture, if you can, my happiness after the twenty-second day, when those eyes had cleared up and those beautiful blue eyes were perfect. I just mention the above to show how much nature will do for an obstetrician if he is only patient and faithful. Sixty percent of cases are vercal. Ten percent are urethral and external.

Varicose Veins: The enlarged veins on legs and genitals should be well supported by bandaging, and patients instructed to keep weight off the feet. *Phlebitis:* Flush lymphatic system.

Pregnacy—Diagnosis:

5th week Ladinski's sign

10th week Hegar's sign

20th week fetal heart tones, etc.

Facial expression, etc.

Effect on Size of Organs: No enlargement of other organs but uterus. Experiments on lower animals show this.

Superfetation: Different ages of twins evidenced by radiographic examination. The lower epiphesis of femur (which develops at term) was not found in the small twin. Dr. Schwaab case of twins. Two placentas: 1,900 grams, 2,850 grams.

Diagnosis of pregnancy by x-ray: At five months, positive in one-third of cases. At six months, positive in one-half of cases. Earliest at four and one-half months.

Pernicious Anemia of Pregnancy: The usual clinical picture develops gradually following normal delivery. The most remarkable feature is of course the anemia. But it is not unusual to find cases where the fever appears early and remains the most annoying symptom for several weeks. Evidence of blood destruction is present from the beginning, and this process may go on to such a considerable degree as to terminate with aplastic marrow accompanied by a blood picture which shows very little or no evidence of regeneration.

Treatment: (1) Rest: Good air: No worry or mental strain. (2) Diet: Iron containing foods with H.C.L. Large doses for stomach. Medication. Arsenic and iron. Transfusion of blood.

Vomiting of Pregnancy: The author has had good results with daily injections of corpus luteum to stop vomiting.

Heart Complications in Pregnancy: A soldier boy, in our town, on his return from the world war, married a beautiful blonde California girl with a severe heart lesion. Everything went well until the last part of her pregnancy when she suffered from edema of the extremities and dyspnea. In spite of this she went through labor perfectly, delivered a normal male child without instruments or puetitryn. The second day the patient was

completely cyanosed, but with the skillful aid of two nurses she made a good recovery. In this case they were advised not to have this experience repeated.

Pregnancy and Tuberculosis: DeLee: Dicum 18 years ago. To empty uterus. In my experience good results have been obtained with injections of old tuberculin.

Eclampsia: The treatment advocated by R. E. Coughlin resolves itself into conservative means at the outset, with heroic methods later. He uses veratrum in large doses to reduce the blood pressure, then after an interval so as to give the circulation time to recover and bear the shock of labor, he delivers forcibly. After treatment: Rest, plenty of H_2O .

Abortion: This occurs between second and fourth month, also along the seventh month on the least injury, chills, or exhaustion. Patients should be warned of extreme care at these times. Sixty-three percent between second and fourth month.

Icterus: Treatment: 1. Castor oil; 2. Pan-crobin; 3. Chionanthus.

Twilight Sleep: Not used as much as formerly.

Dr. A. R. Barnes, 5,500 cases. Requires from 18 hours to 27 hours with two to six injections. So what is the use?

Forceps and Caesarean Section: I believe in non-interference, except where clearly indicated. I believe many forceps extractions will injure the young cervical vertebrae, and the doctor will have many cases of epilepsy and torticollis to answer for.

Labor: In conclusion let me stress that the sheet anchor in obstetrics is "*Patience*." In my last hundred cases I have used instruments only three times, and I am proud of the fact. In one case of a young girl under nineteen, weighing less than ninety pounds, I stayed with her three nights and two days. Nature was kind to me, and helped me deliver a normal child without instruments. I consider it no small thing to be able to hold the confidence of this young couple and relatives without being discharged or calling in consultation.

If my paper has made any impression I want it to be the plea for more "*Patience*."

THE DEVOLUTION OF ADVERTISING

As our readers probably know, "patent medicine" advertising is as old as, or perhaps older than, the newspaper itself. The history of the newspaper dates back only about three hundred years, whereas circulars vaunting the merits of proprietary preparations can be found in the records of antiquity. In the recent survey of the development of the newspaper, Miss Lucy M. Salmon, professor of history in Vassar College, calls attention to the development of "patent medicine" advertising:

The early commercial advertisements were largely haphazard in their form and hence in their appeal. In the middle of the last century, Hayward noted that pain or the fear of pain was the most active stimulant to advertising and that this resulted in the supremacy of patent medicine advertising. Since vanity made the next strongest appeal, the advertisers of beauty producers followed hard after quack doctors. But anaesthetics and science have found "a better way" for the relief of suffering, while the balance has been shifted from interest in personal beauty to the more vital things in life.

Perhaps in crediting the new point of view she would have done better to give some of the credit to an awakened moral sense, which was responsible for the development of truth in advertising campaigns and for the purging of the press of this type of advertising. She calls attention, however, to one point that has not been given adequate consideration in the discussion of this problem. Prob-

ably few readers realize that the advertising pages of our periodicals will be taken by the historian of the future as an adequate picture of the civilization of the period. Of this, Miss Salmon says:

The numerous advertisements of patent medicines, for example, that were announced as cures for every ill known to the body or the mind are to the historian in themselves willful attempts to deceive an ignorant public, and while obviously false they are records of the baser elements in men; of the proneness of the ignorant to grasp at straws; of the general lack of information in regard to hygiene, sanitation, and the general welfare of the human body, and of right living; of the low standards of the press that lends itself to such advertising, and of the low standards of a community that tolerates such advertising in its press. Advertisements giving fictitious valuations of articles that their owners desire to sell are, for the historian, unimpeachable records of prevailing low business standards.

No doubt the present epoch in advertising will be known as the period of the advertising blurb. Never before has the public been regaled with such an assortment of high flown, exuberant, exotic and exaggerated language. It is apparently not sufficient to exploit the most useful or desirable device, food substance or vehicle, particularly the automobile, purely on its merits. All of the mythology of antiquity, the mysteries of science and the hypothesis of fiction are called on to make a sale. The trend has been away from the pushing of the pernicious with false and fraudulent claims and toward the urging of the useful with exaggerated, misleading hokum.—*Jour. A. M. A.*, Sept. 29, 1923.

THE JOURNAL*of the***Indiana State Medical Association**

Devoted to the Interests of the Medical Profession of Indiana

ALBERT E. BULSON, JR., B.S., M.D., F.A.C.S.

Editor and Manager

Office of Publication, 406 W. Berry St., Fort Wayne, Ind.

MAY, 1924

EDITORIALS**THE CHICAGO SESSION OF THE A. M. A.**

This year's session of the American Medical Association is to be held in Chicago, June 9 to 13, inclusive. Indiana will send a large delegation of physicians to the convention and all of the central states will do likewise. In fact in all probability there will be the largest attendance in the history of the Association.

An important feature of the session is the opportunity offered to visit the completed headquarters of the Association which now occupies a seven-story structure covering one-half block, the largest and most completely equipped building of its kind in the world. Several hundred employees are required to care for all of the work connected with the various activities of the Association.

A very desirable and advantageous feature of the session is an arrangement whereby all of the meetings and exhibits will be held upon the new Municipal Pier where it will be cool and there will be freedom from dust and noise. The advantages of having everything under one roof were demonstrated at the San Francisco session, and every one appreciates an arrangement whereby it does not become necessary to hunt over several blocks to find the various section meeting places, registration bureau, and other activities of the session. The new Municipal Pier in Chicago cost five million dollars and has ample facilities for caring for several thousand people. It is nearly three hundred feet wide and extends nearly a mile into Lake Michigan. It is far removed from the noise, bustle, dust and traffic of the business district. It is but a block or two from the A. M. A. building, and the Drake Hotel, which latter is the hotel headquarters for the session.

The accommodations for the visitors are all that could be desired, for within recent years a large number of very fine hotels have been erected in Chicago, some of them in the downtown district and others, equally pretentious, remote from the downtown district but still accessible.

Aside from the scientific programs that this year are of especial interest there will be many other interesting features connected with the Chicago session. On Monday and Tuesday, June 9 and 10, diagnostic clinics in charge of some of the leading clinicians of the United States will be held at the Municipal Pier. There also will

be the usual scientific exhibit which this year will be larger and more diversified in character. Adjoining the scientific exhibit will be a motion picture theater where from Monday until Friday, from 9 a. m. until 5:30 p. m., speakers will present scientific lectures or talks and demonstrate the same with either lantern slides or motion pictures. The large medical schools of Chicago, with the hospitals connected therewith, will offer clinics for the attending physicians, and there will be the usual public health conferences and meetings to discuss hospital organization, medical teaching, and the usual meetings and banquets of alumni associations and fraternities.

For entertainment the visitors will be tendered receptions, taken on conducted tours through some of the large manufacturing plants and business houses, and given an automobile ride over Chicago's boulevards. The annual tournament and dinner of the American Medical Golfing Association will be held at the Olympia Field's Country Club on June 9. The ladies will find an abundance of entertainment for them in receptions and teas, automobile drives and tours through the shopping districts.

Those who attend the Chicago session are asked to register early at the Municipal Pier in order to avoid congestion at the beginning of the scientific meetings. Likewise all those who go to Chicago are asked to procure a certificate when purchasing railroad tickets; which certificate will entitle the holder to return railroad fare at one-half the usual rate. These certificates must be deposited at the transportation department on the Municipal Pier where they may be validated by the secretary of the Association and the representative of the railroad companies, after which they are good for the return passage not later than June 17.

Everything points to the most successful and most largely attended session in the history of the Association and Indiana doctors will flock to Chicago in large numbers to profit by attendance upon the largest and most progressive medical Association in the world.

PROGRAM FOR THE NEXT SESSION

For several weeks the Scientific Committee of the Indiana State Medical Association has been working upon a plan for a program for the next session to be held in Indianapolis next September which carries with it a departure from the programs usually presented at the annual sessions of the Association. At a recent meeting of the committee the officers of the Sections were present and rather definite arrangements perfected for carrying the new plan into effect. Accordingly we are pleased to announce the following:

It has been decided to have a three-day session, the scientific program for which is to be made up of clinical demonstrations in the forenoons and a limited number of scientific addresses in the

afternoons. Those who are to take part in the program will be invited, and selections are to be made from the best available talent whether it be from within or without the state. The subjects are to be selected by the officers of the Sections, and are to be of practical importance and to be presented by doctors who are thought to be capable of saying the last word on the subject assigned.

The forenoon clinical demonstration will be in the form of dry clinics, the patients to be furnished by the Indianapolis medical men and the various Indianapolis hospitals. The officers of each of the Sections will make the selections of the men who will present these clinical demonstrations, and will even select the subjects to be considered and to be illustrated by the clinical patients. Each of the three sections will be represented in each forenoon's clinical program, only one hour to be consumed by the man selected for any particular section. There will be no discussion, though those attending these clinical demonstrations will be privileged to ask questions. These clinical demonstrations of one hour each will be conducted on the three mornings of the session and every facility will be provided for making them instructive.

Each of the afternoon meetings will consist of three scientific addresses, preferably illustrated by moving pictures, stereopticon slides, or opaque projector, and no address consuming more than thirty minutes of time. An additional thirty minutes for each address will be devoted to discussion by two physicians selected for the purpose, each to be permitted five or ten minutes, and the balance of the one hour of time will be devoted to general discussion. There will be three of these scientific addresses on each afternoon of the session, and each of the three sections of the Association will be represented.

The plan as adopted and here outlined carries with it the idea of giving the members of the Association a program that from beginning to end will be intensely interesting and instructive as well as highly practical. It is not the intention to have any of these clinical demonstrations or addresses elementary in character, but rather to present the very latest and most up-to-date information upon the subjects assigned. As one of the officers of a Section remarked, "In a sense, it will be an all-star performance," and while several Indiana men may be selected to take part in the program, yet it is thought likely that a considerable portion of the program will be presented by outside talent, and for the reason that it is a well-known fact that in some instances the most recent development and practice in a given line may be given more comprehensively and in a better manner by men who are responsible for such development and perhaps are nationally or internationally known for that accomplishment.

The committee has discussed at length and on numerous occasions the possibility of creating

some jealousies and antagonisms by having a selected program with selected essayists, but arrived at the conclusion that the medical men of Indiana are broad-minded enough to see the advantages and the great benefit to be derived by the profession as a whole in carrying out such a plan as decided upon, and it is not expected that petty jealousies and inconsistent complaints will be offered because this year a departure has been made from the democratic plan pursued in former years. The committee, together with the officers of the sections, has in mind the presentation of a scientific program for the three-day session of the Association which will outstrip anything of the kind ever attempted by any state association. To carry this plan out successfully means a lot of hard work for the committee and officers of the sections, aided and assisted by the medical profession and hospitals of Indianapolis, but this co-operation has been assured. The committee, therefore, feels that the members of the Indiana State Medical Association can look forward to the next session as promising to be the most profitable and instructive ever held by the Association, and respectfully asks the indulgence of the members in arranging for such a decided departure from the stereotyped programs of previous years.

FEES IN INDUSTRIAL CASES

There is an increasing tendency on the part of all employers of labor to adopt the insurance plan of meeting the expenses incident to the care of sick and injured employees. Sometimes this means that the sick or injured employee may be attended by a physician of his own choice, though more often it means that he is provided with a physician who receives his appointment by the employer or not infrequently by the insurance company carrying the risk for the employer. Furthermore, the tendency on the part of insurance companies to dictate to employers as to whom shall be appointed as medical attendants in case of industrial injuries is growing and constitutes a serious menace to the best results secured from a plan that ostensibly is intended to afford under all conditions the best possible care for injured employees.

So far as the insurance companies are concerned the whole proposition is commercial from beginning to end, and seldom is the question of quality of service the foremost one for consideration, but rather how can the injured employee be given attention at the least expenditure of time, effort and money. If an employer really has the best interests of his employees at heart he may secure the services of the best obtainable medical men when his employees are injured, but unless the compensation demanded by these medical men is less than the usual fees charged for private work in that particular vicinity the insurance company will step in and demand that other

physicians who are willing to work for less compensation be employed, and not infrequently an unfair and unprofessional competition on the part of physicians results in efforts to secure industrial work. It also works to the detriment of the injured employee who not infrequently is subjected to inferior service because of this system of placing cost before quality. Even the physicians who are willing to do industrial work for less than the customary fees for such services usually are imposed upon sooner or later by the insurance companies, for when once there has been a lowering of the scale of compensation, insurance companies come to believe that it is possible to squeeze the compensation still lower, and thus not infrequently there is a constant wrangle between medical men and insurance companies in the settlement of fees that seem appropriate for a given case.

Not content with what they can accomplish by themselves in reducing the compensation for medical attendance upon injured employees, the insurance companies have recourse to an Industrial Board created by the state, largely at the instigation of the insurance companies and with policies, rules and regulations, so far as compensation to medical men is concerned, that are almost entirely in the interests of insurance companies. If any one does not believe this he will change his mind if he consults the medical fee bill which apparently governs the action of the board in the awarding of compensation to physicians who have rendered services in industrial cases. Not only is this fee bill unjust insofar as it pertains to specific services, but in its interpretation as well, as is evidenced by the fact that an operation, for instance, is, in the eyes of an insurance company and oftentimes in the eyes of the board, a service for which a fee is fixed like the charge for a pound of coffee, with no consideration as to how the operation has been performed, the conditions under which performed, and the complications arising therewith or subsequently. If a controversy arises between physician and insurance company as to the amount of a fee in a given case, the matter is referred to the Industrial Board, composed entirely of laymen, perhaps for various reasons in entire sympathy with the insurance companies, and the physician has little chance to secure a fair and impartial consideration of his claims. If the physician elects to defend his claim for just compensation, at a considerable expense of time and money, he invariably finds himself unable, alone, to compete with the insurance companies who generally are represented before the board by cunning lawyers who succeed by fair or foul means in influencing judgment in favor of their clients.

We call attention to this matter for the purpose of arousing the medical men of the state to a realization of the necessity of taking some united action in self-defense and to protect their inter-

ests. What the future will bring forth if conditions continue as they have in the past seems rather settled and point to a general lowering of the estimate that is placed upon highly skilled and technical services.

The remedy suggests itself. Employers of labor should have a better understanding of values as pertaining to services rendered their employees. The selection of physicians for doing industrial work should not be dictated or influenced by insurance companies, and within reason employees should have the privilege of selecting their own physicians. Compensation at all times should be based upon the kind and quality of services rendered and not be dependent upon the status of the employee nor fees fixed by an insurance company having no other than commercial interests in view, though the fees at all times should be in keeping with fees for similar work in private practice. The thirty-day period beyond which no medical services in industrial cases are compensated for by the insurance companies should be abolished, and for the reason that seldom if ever is attention to a serious industrial case confined within the thirty-day period. It is entirely probable that a limit of sixty days in the majority of cases, with the right of the Industrial Board in special instances to extend the period when justified by the evidence, would prove a fair solution to the problem. A fee bill having the approval of the Indiana State Medical Association could be used as a fair guide in awarding judgment in disputed cases, but the board should be given the right to make its own interpretation, based upon all the circumstances in the individual cases, as to whether there should be any deviation from the adopted schedule. Finally, the medical profession should be represented on the Industrial Board by a member who himself is a medical man and whose counsel and advice would be useful in enabling the board to consider all the phases of each individual case in a fair manner. If the Industrial Board is not to have a medical member then the Indiana State Medical Association should have either an attorney or some other well qualified person to represent the individual members of the Association in the settlement of all controversial claims covering compensation for services rendered in industrial cases.

This whole matter is of far reaching importance and is deserving of serious consideration, and we hope that our Association through its committee on Civic and Industrial Relations or in some other way will take such action as indicated in order to correct a phase of the economic side of the practice of medicine which threatens to bring about more serious results than we suffer from at the present time when so many of our number are being dealt with unjustly and unfairly in rendering professional services in a class of

cases that are increasing rapidly in number and form a fair proportion of the work of some physicians in every community.

EDUCATION FOR THE POOR BOY

Much has been said concerning the difficulties encountered by the poor boy in securing an education, and in particular a medical education, because of its cost. Heretofore most of the arguments, inconsistent though they may be, have been directed toward a plea for a lowering of standards in order to put out a so-called finished product in less time and with less effort and expense. Now comes the asinine argument of the dean of one of our large universities in which the charge is made that the poor boy is seldom leader in his classes in consequence of impairment of health from overwork, that his acquirement of knowledge is diminished as a result of his inability to devote as much time and effort to it as otherwise would be possible, and that the very nature of his condition and environment develops in him a rigidity of mental process that precludes imagination.

Such nonsense is unworthy of the thought of a leading educator, much less worthy of expression, and does much to place some of our higher institutions of learning and the men connected therewith in the ranks of snobbery. History shows that some of the greatest intellects of the world have been possessed by men who as boys have had to earn their way through college, and it is our experience that a large proportion of the leaders in scholarship in our colleges and universities are poor boys. As a matter of fact, it is the poor boy who appreciates what an education means because he has to pay for it, and he works all the harder and applies himself all the more diligently because he has made up his mind to have something for the time and money that is expended. On the other hand, it is the boy who does not have to worry over the financial cost of his education who, generally speaking, takes things easiest and is least apt to be noted for scholastic attainments. The very rich are the ones who more often are tail-enders in their classes, if they do not really drop out altogether, because they do not apply themselves well enough to keep up. It is quite within the range of possibility to make the requirements so high that neither poor boy nor rich boy, no matter how much they apply themselves, can meet them with satisfactory grades. At present the poor boy may be engaged in some useful and financially profitable occupation while his well-to-do classmates are employing their time in athletics and social diversions, but he finds just as much time as the others to keep up with his classes, and quite generally employs that time to much better advantage than the average student. We therefore feel inclined to condemn, in an emphatic way, any statements on the part of our educators which reflect upon the

ability of the poor boy to hold his own with those more fortunate, and we certainly would throw no obstacle in his way to prevent him from obtaining a higher education, including a medical education, even though he has to earn his way while doing it.

EDITORIAL NOTES

DEAR DOCTOR:

THE JOURNAL and the Cooperative Medical Advertising Bureau of Chicago maintain a Service Department to answer inquiries from you about pharmaceuticals, surgical instruments and other manufactured products, such as soaps, clothing, automobiles, etc., which you may need in your home, office, sanitarium or hospital.

We invite and urge you to use this Service.

It is absolutely FREE to you.

The Cooperative Bureau is equipped with catalogues and price lists of manufacturers, and can supply you information by return mail.

Perhaps you want a certain kind of instrument which is not advertised in THE JOURNAL, and do not know where to secure it; or do not know where to obtain some automobile supplies you need. This Service Bureau will give you the information.

Whenever possible, the goods will be advertised in our pages; but if they are not, we urge you to ask THE JOURNAL about them, or write direct to the Cooperative Medical Advertising Bureau, 535 N. Dearborn St., Chicago, Illinois.

We want THE JOURNAL to serve YOU.

EVERY progressive Indiana doctor will be in Chicago June 9 to 13 to attend the annual session of the American Medical Association.

THE degree Doctor of Laws has been conferred upon Dr. Wm. N. Wishard, of Indianapolis, by the Indiana University. It is an honor well bestowed.

WE never thought that the Ku Klux Klan would get control of a great political party, but that is exactly what has happened here in Indiana. Well, it will give every one a chance to express his or her convictions, and we believe that it will not be difficult to predict the ultimate result.

NEARLY all doctors use a typewriter and a manufacturer advertising in *The Journal* has produced such a typewriter as doctors have been requesting and is worthy of their consideration. Furthermore it has the advantage of being moderate in price.

THIS year the A. M. A. has been brought right to our doors and Indiana should send a large delegation to the session to be held in Chicago, June 9th to 13th inclusive. Attendance upon any session of the A. M. A. is a rare treat and there is little excuse for missing it this year when the meeting place is so near.

As it looks now doctors will not find it difficult to decide how they are to cast their ballots in the coming elections. There are some candidates for office who will uphold all that the members of the medical profession uphold and some who will not. There is no excuse for a doctor voting against his own best interests.

EVERY number of *Hygeia* that comes from press and is distributed to the public is testimony of the wisdom of the American Medical Association in creating and maintaining such a valuable and trustworthy health publication for the laity. Every doctor should make it his business to see that one or more numbers of this valuable periodical are on the public reading tables in his vicinity.

THE medical defense feature of the Indiana State Medical Association has been an unqualified success, but there are a few doctors who think that they can be delinquent in dues or even join the Association after services, which are the cause of a malpractice suit, have been rendered, and then have the Association defend them. It should be known by every member of the Association that medical defense at the expense of the Association is furnished only to those doctors who are in good standing in the Association when the services which are the cause of the malpractice suit were rendered.

UNLESS medical men take a more active interest in civic and political affairs public health will suffer. Scientific medicine now is fought by chiropractors, anti-vaccinationists and pseudo-medical cult leaders. In Chicago the attempt to create a local board of health under a special ordinance not only was opposed by these allied obstructionists, but when the health commissioner declared that vaccination was necessary for the prevention of epidemics he frankly was called a liar and the effort to secure recognition of a health measure based upon the indisputable facts concerning the prevention of disease was frustrated. Nothing short of a devastating epidemic will bring some people to their senses.

IT soon will be time for the summer vacation and with it the possibilities of contracting typhoid fever. It is the duty of the family physician to urge the use of typhoid vaccine, especially for those who are going on vacation trips to cities where the water may not be pure, or who are going on to resorts or camps and drinking from springs and wells the purity of which no one is certain. As an argument in favor of typhoid vaccination it is well to call attention to the results secured in the last war. Every American soldier was immunized against typhoid as soon as he entered camp and as a result typhoid was practically unknown in our army. In the Spanish and Civil Wars more soldiers died from this disease than from bullet wounds.

IT is entirely possible to stamp out diphtheria, but such a desirable result will never be accomplished until we overcome the objection to immunization by injections of toxin-antitoxin. The time will come when this sort of immunization will

be just as common as protection from smallpox by vaccination. The only opposition will come from a lot of ignorant fanatics or followers of Christian Science and such inconsistent practices, all grouped into the one class, the "antis" of every description, organized and carried on with the idea of opposing scientific medicine in all of its phases. However, a little knowledge imparted by every member of the regular medical profession will go a long way toward offsetting the effect of the pernicious influence of these obstructionists.

UNITED STATES Veterans' Hospital No. 95, Northampton, Massachusetts, was officially opened with appropriate ceremony on May 12th. It is announced that the medical officer in charge will be assisted by a personnel of approximately 250. The hospital was constructed at a cost of more than two million dollars and is equipped with every modern appliance adapted to the treatment of neuropsychiatric diseases. Let us hope that this hospital will make a record for itself in efficiency and up-to-date treatment. As a general proposition, the United States Veterans' Bureau has been an enterprise that has made its chief reputation for graft and incompetency. As a matter of fact it is quite generally recognized that the veterans of the late war received scant consideration at the hands of most of those who have been appointed to look after them. What the Veterans' Bureau needs is a real housecleaning to get rid of those connected with it who have been guilty of both dishonesty and incompetency.

WE are not surprised to learn that there is an Indiana Society for Medical Freedom and that a few misguided individuals professing to belong to that society have met in Indianapolis and passed some resolutions condemning medical inspection and examination of school children and calling upon the school officials and public health authorities in the State of Indiana to exempt those who desire it from both medical inspection and treatments. It is a rather dangerous thing to let ignorance and perversion of the mind run wild and be unchecked by reason. Our public schools would be unsafe places for children if all medical inspection were abandoned. Those who belong to the Indiana Society for Medical Freedom should have the privilege of all the freedom they wish, provided they will take it in a stockade where other people will not come in contact with them, but to let them practice their peculiar beliefs when constantly in touch with the public is a good deal like turning a wild bull loose in a china store.

IN New York the supreme court has found a chiropractor guilty of manslaughter on account of "culpable negligence" in the treatment of a patient who died from diphtheria. The chiropractor did not know that his patient had diphtheria. In Ohio a chiropractor has been fined

seventy-five dollars and costs through failure to report a communicable disease. He did not know that his patient had diphtheria. A leading surgeon of Indiana tells us that he alone within the last year has seen some eight or nine abdominal pus cases, requiring an operation, that nearly lost their lives as a result of delay while chiropractic treatment was being tried. If one prominent surgeon sees this number of cases how many like instances are occurring in the practices of all of the leading surgeons of the state? A few more convictions of chiropractors for "culpable negligence" will go a long way toward pointing out to the public in a forcible way the dangers of ignorance and indicate why educational requirements, such as we have in Indiana for instance, are necessary for those who wish to practice the healing art if the public is to be protected.

DURING the year we elect new legislators and beginning with January 1st there will be the usual scramble in the State house in Indianapolis to put through new legislation. The reputable medical men of the State have a legislative program that they desire to have carried out in the interests of rational medical practice. What is desired is only legislation that is reasonable and just and in the last analysis is for the benefit of the people rather than for the medical profession. However, to accomplish anything in the way of betterment of present conditions will require the earnest effort of every member of the Indiana State Medical Association and we urge that due attention be given to the subject. Do not depend upon our Committee on Public Policy and Legislation to do all the work. Every doctor has a certain amount of influence in his community and every legislator can be influenced by his family physician or personal friends in the medical profession. Our Committee on Medical Legislation will put in the hands of any doctor the arguments that we are advancing for a change in our present laws, and the arguments are so logical and so fair that no legislator can refuse to listen to them, and undoubtedly many of the legislators can be influenced to act intelligently if the subject is presented to them in a proper manner.

It is a well-known fact that many people not only do neglect to pay their doctors' bills for professional services rendered, but oftentimes go out of their way to avoid an obligation of that kind. One of the means of effecting better collection of accounts has been adopted by the medical profession of Vincennes which is publishing in the lay papers an announcements as follows:

"For several years the doctors of Vincennes have been taking unjust losses from people who call a doctor and forget to pay him for his services. This condition has become acute, and at a

recent meeting of the profession it was decided to protect itself from these delinquent people who will not pay their bills and who, by virtue of the fact that there are some thirty doctors in the city, shop around from one doctor to another, and thus escape, except only in a small part, their just debts, throwing an extra burden on those who do pay.

"Lists are now being prepared of these delinquents, for distribution. As it is the wish of the doctors not to include any one who is really honest and desirous of meeting his obligations, the time for the distribution of the lists is set for May 15th; thus giving all sufficient time to settle up or go to their doctors and make satisfactory arrangements for a systematic plan for the squaring of their accounts. Supplementary lists will be made out each year and distributed."

ABOUT three or four hundred doctors in Indiana who last year were members in good standing of the Indiana State Medical Association are now delinquent in their dues. Presumably these men know that on and after February 1st they were not members in good standing in the State Association, and consequently not entitled to medical defense at the hands of the Association for any malpractice suit brought in connection with services rendered while delinquent. Furthermore, these former members are not receiving *THE JOURNAL*, inasmuch as the post office department does not permit us to send *THE JOURNAL* to delinquents. As a matter of fact we are surprised to know that there are so many doctors in Indiana who are so careless and indifferent to their own interests that they will neglect as important a matter as keeping up membership in their county and state medical societies. Some of them make the excuse that they are provoked because of a raise in the dues, and every man who makes that excuse ought to hang his head in shame, for it does not speak well for his reputation as a person possessed of good judgment. The same men will pay their golf dues, cigar bills or the cost of many other unnecessary and foolish extravagancies and never say a word. The only reason they object to medical society dues is that the dues are fixed by some of their confreres, and anything that comes from a confrere is looked upon with suspicion. It is high time that medical men improve their conduct in this direction.

DR. WILLIAM N. WISHARD, of Indianapolis, this year is celebrating his fiftieth anniversary in the practice of medicine. Throughout his entire career he has been identified in a very active way with the medical schools of the State and at present is one of the most active teachers in the medical faculty of Indiana University. In addition to his work as a teacher he also has been interested in the advancement of the science and practice of medicine in every other way, and in

particular he has been one of the most faithful and efficient workers in the Indiana State Medical Association. Aside from these activities he, for many years, has been the guiding hand in shaping medical and public health legislation, and there probably is not a law on the present Indiana statutes which refers in any way to public health matters or any phase of medical work, or in which medical men are interested, that has not either been drafted or revised by Dr. Wishard.

In consideration of all of the valuable services that he has rendered it is the intention of some of his former students and friends to present the Indiana University at commencement season with his portrait by the noted Indiana artist, Mr. T. C. Steele, and at the same time the University will bestow upon Dr. Wishard further honor by conferring upon him the degree Doctor of Laws. Certainly this recognition is well deserved, for it is a tribute to the unrelenting and efficient service that Dr. Wishard has rendered in everything pertaining to the art and practice of medicine.

THIS is the year of elections and every chiropractor in the state is working the political game overtime. He talks politics to his dupes and he talks politics to chance acquaintances. He interviews candidates for office and he gets promises from them. He is doing the kind of work that counts because it is propaganda work that carries influence especially when not opposed to any great extent. How many members of the Indiana State Medical Association are doing a tenth as much to influence legislation? Don't blame the public for bad medical laws and the legal recognition of quacks and charlatans, for the public has no way of judging the matter except through education that is forced upon each and every member of the laity. We credit a good portion of the laity with ordinary intelligence and common sense and yet experience shows that when it comes to the selection of a doctor or the kind of treatment to be employed for the relief of sickness many otherwise intelligent people display lamentable ignorance. Some of our medical friends say that we should not attack the cults or say anything about them, but the cults are attempting to discredit scientific medicine and are winning recognition because they are not meeting with much opposition, and they will not meet with opposition until medical men adopt the same tactics as adopted by the cults. Shall we lie down on the job or shall we do our duty by opposing deception and fraud and acquaint the public with the facts?

THE opticians have an eye to business. In many cities and towns of the state the opticians have offered to make free examinations of public school children and employees in factories and other places of business with the idea of detecting

and correcting optical defects. The only string attached to the proposition is that all glasses furnished must be paid for by the one for whom the glasses are furnished. Many a child as well as grown-up will be fitted with glasses that are not indicated or needed, many an instance will occur where glasses are needed but an improper correction given, and not infrequently the indications for medical treatments will not be discovered, but the scheme is a business-getter and a money-maker and the people "fall" for it. Reputable medical men consider it in bad taste if not wholly unethical to parade their accomplishments or solicit patronage, but such practices on the part of opticians, chiroquacks, and members of other pseudo-medical cults are not only approved but meet with endorsement on the part of the public. Perhaps school officials and employers of labor would act differently if they were educated properly, and it is high time that they begin to be made acquainted with the difference between competency and incompetency. We have been strangely negligent in letting the public know what sort of training and experience is required to make a good doctor and one who can be trusted to care for the ills of humanity. Our Bureau of Publicity has a great work before it in trying to get the laity to recognize the difference between good and bad attention to physical ills.

Now that the result of the primaries is known it is time to begin counting noses with a view to learning something about the complexion of the incoming legislature as it pertains to the possibility of securing better legislation governing everything pertaining to the practice of medicine. Unfortunately, no organized effort was made to prevent the nomination of undesirable men as candidates for the legislature, but an effort should be put forth to prevent the election of those men known to be opposed to scientific medicine. As medical men we are interested more in good medical legislation than we are in the legislation advocated by the various political parties, and accordingly we shall not be voting for our best interests if we are guided alone by adherence to any particular party when we come to casting a vote for candidates for the legislature. It is purely a gamble as to whether we will have lower taxation at the hands of either the democrats or the republicans, and no more can be said concerning other forms of legislation, but we can be seriously injured and the public health interests endangered by electing to the legislature men whom we know are opposed to scientific medicine or from their noncommittal attitude may be considered as opposed to scientific medicine. Prior to election day an attempt will be made to place every candidate on record, and we urge every doctor in Indiana to take off his coat and do some political work in an attempt to defeat those candidates for the legislature who are unwilling to

uphold the principles for which we stand. In fact, the time has arrived where we ought to forget that we are either republicans or democrats and to remember that we are doctors and that we should vote for those things in which doctors are interested.

HERETOFORE we have had occasion to remark that the economic side of the practice of medicine has no greater foe than the public health service which insidiously though none the less surely is beginning to assume nearly all of the functions of the private practitioner of medicine. It is a debatable question whether State Medicine will prove satisfactory even for the care of the indigent, but at all events we are drifting in that direction and the medical profession is permitting itself to be not only the injured party in this transformation but the one which by means of its present apathy and disinterestedness in the subject is helping along the coming of the evil day when State Medicine will be a fact rather than a theory. For several months there has been some controversy with our own Indiana State Board of Health concerning certain practices on the part of the board that we think are infringing upon the rights of private practitioners of medicine and that overstep the bounds of what ordinarily is considered public health work. A protest has been filed with the board by some representative physicians of Indianapolis, and in an early number of THE JOURNAL we shall publish this protest along with the answer on the part of the board. Perhaps it is pertinent to suggest, as we often have done before, that it is high time that the various agencies having to do with medical work in the State of Indiana, whether relating to teaching, practice, or public health work, should get together in a spirit of co-operation to accomplish the best results without treading upon each other's toes or minimizing the good secured by antagonizing each other. Up to the present time it would seem that the State Board of Health draws no distinction between those which clearly are public health matters and those which many of us believe have nothing to do with public health matters. A better understanding of this whole situation is needed in order to bring about that spirit of co-operation and helpfulness required for the development of everything pertaining to health, whether it be public or private.

WE recently have read a letter from a superintendent of public schools complaining about the officiousness of a Red Cross nurse and other school nurses, and what has occurred in the county from which the letter comes is occurring in various other counties over the state. The letter goes on to say:

"A Red Cross nurse is taking quite a bit of authority in the schools of our county. She is a story teller, teaches composition, drawing, games, hygiene, and pretends to make

physical examinations of children. Most of her teaching is elementary and can be given by any one of our beginners in teaching. She uses her authority to inspect school-house sanitation, send children from school and goes in to any school without notifying the county superintendent in advance. We have a very excellent county health officer who refuses to be a party to her program. I would like to enlighten our trustees and the public as to just what the doctors of Indiana stand for and just how far this nurse can go with her assumed authority."

This is but a sample of officiousness that may be found in many counties of the state. Not a few of the public school nurses, whether identified with the Red Cross or not, pretend to make physical examinations and pass judgment on the supposed defects of children, often to the end that parents are frightened even though they do not learn to distrust all efforts tending to improve public health. We know of an instance where a child suffering from an acute rhinitis was sent home from school with a note from the school nurse to the effect that the child urgently needed a tonsil and adenoid operation. Inasmuch as the child already had had such an operation at the hands of a competent operator and the work had been skillfully and satisfactorily done, the parents were rather upset at the advice given by the officious school nurse whose ignorance was monumental. In another instance a child recently recovered from influenza but in good physical condition was sent home by the school nurse with instructions to the parents to have the child taken care of at once for a "leaking heart." It so happened that the child was under the care of one of the leading internists of the state and he promptly assured the parents that the school nurse better "jump into the lake" as she was giving advice concerning something of which she knew nothing, as the child had a perfect heart.

Isn't it about time that some measures be taken to suppress the officious health nurses who presume to diagnose diseased conditions of school children and even suggest the kind of treatment that they should have? We know that there are some school nurses who do not attempt to assume the functions of a medical man, and really are performing a valuable service in promoting public health in our schools; but where you will find one of that kind you will find three of the kind that forms the basis of this comment. It is up to the medical profession to take more interest in this question of the medical inspection of schools and condemn and oppose this practice on the part of public health nurses, whether they are identified with the Red Cross or not, of assuming the functions of a medical man.

DEATHS

W. D. WATSON, M.D., of Tennyson, died March 12th at the age of 78 years. Dr. Watson was a graduate of the Kentucky School of Medicine, Louisville, in 1888.

M. V. FISHER, M.D., of Lafontaine, died April 3rd, aged 42 years. Dr. Fisher graduated from

the Indiana University School of Medicine, Bloomington-Indianapolis, in 1908.

SOLON K. HOUSER, M.D., of Indianapolis, aged 70 years, died April 20th. Dr. Houser graduated from the Kentucky School of Medicine, Louisville, in 1892.

THOMAS J. BOWLES, M.D., of Muncie, died April 20th at the age of 87 years. Dr. Bowles graduated from the Medical College of Ohio, Cincinnati, in 1867.

J. D. ROBERTS, M.D., of Terre Haute, died April 12th. Dr. Roberts was 69 years of age. He was a graduate of the Indiana Eclectic Medical College, Indianapolis, in 1881.

WILLIS HALL, M.D., age 61, of Portland, died April 2nd. Dr. Hall graduated from the Cleveland College of Physicians and Surgeons in 1893. He was a member of the American Association of Anesthetists.

B. L. GORDON, M.D., died at the home of his daughter in Frankfort, March 22nd, at the age of 73 years. He graduated from the Eclectic Medical College, Cincinnati, in 1891. Dr. Gordon was not in active practice at the time of his death.

B. S. HUNT, M.D., of Winchester, died March 23rd, at the age of 55 years. Dr. Hunt was a member of the Randolph County Medical Society, the Indiana State Medical Association and the American Medical Association. He graduated from Rush Medical College, Chicago, in 1894.

F. H. WILCOX, M.D., of New Albany, died April 4th, at the age of 53 years. Dr. Wilcox graduated from the University of Louisville Medical College in 1890. He was a member of the Floyd County Medical Society, the Indiana State Medical Association and the American Medical Association.

H. E. JONES, M.D., of Anderson, died April 13th, at the age of 79 years. Dr. Jones was a graduate of the Medical College of Ohio, Cincinnati, in 1873. He was a member of the Madison County Medical Society, the Indiana State Medical Association and the American Medical Association.

J. D. WILSON, M.D., aged 63, died April 22nd, at his home in Laketon. Dr. Wilson graduated from the Ensworth Medical College, St. Joseph, Missouri, in 1896. He was a member of the Wabash County Medical Society, the Indiana State Medical Association and the American Medical Association.

O. A. BIGHAM, M.D., of Batesville, died April 26th at the age of 59 years. Dr. Bigham graduated from the Medical College of Indiana, Indianapolis, in 1888. He was a member of the Ripley County Medical Society, the Indiana State Medical Association and the American Medical Association.

RODNEY E. TROUTMAN, M.D., of Logansport, died April 22nd, at the age of 43 years. Dr. Troutman was a member of the Cass County Medical Society, the Indiana State Medical Association, and a Fellow of the American Medical Association. He graduated from Rush Medical College, Chicago, in 1904.

S. C. WILLSON, M.D., aged 59, died at his home in Anderson, April 26th. Dr. Willson was a member of the Madison County Medical Society, the Indiana State Medical Association, and the American Medical Association. He was a graduate of the Georgetown University School of Medicine, Washington, D. C., in 1888.

NEWS NOTES AND PERSONALS

Anything in the line of physicians' supplies or equipment may be obtained from advertisers in THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION. Patronize these advertisers, for it means a continuance of their advertising patronage, and the latter means a larger and better Journal for you.

FOUNDER'S DAY of Indiana University was celebrated at Bloomington, May 7th.

DR. AND MRS. H. R. ALLEN, of Indianapolis, have returned from a six months' trip around the world.

THE Northern Tri-State Medical Association held its fifty-first annual meeting at South Bend, April 8th.

THE Second District Medical Society held a meeting at Vincennes, April 3rd. A public meeting was held in the evening.

DR. CHARLES N. COMBS, of Terre Haute, was elected president of the Indiana Hospital Association at the session held in Fort Wayne, April 24th.

THE Jasper-Newton County Medical Society held its regular monthly meeting at Goodland, April 25th. Drs. H. S. Gibson and L. H. Recher presented papers.

DR. ELIZABETH ENZ has been engaged as a member of the staff of the Central Indiana Hospital for Insane, at Indianapolis, to succeed the late Dr. Sarah Stockton.

DR. W. T. GOTT has been reappointed a member of the State Board of Medical Registration

and Examination for a term of four years, beginning April 23rd 1923.

At a meeting of the Montgomery County Medical Society held April 24th at Crawfordsville, Dr. Virgil H. Moon, of Indianapolis, addressed the members.

THE Kosciusko County Medical Society held its regular monthly meeting at the Warsaw Library, Warsaw, April 15th. Dr. G. W. Anglin presented a paper on "Insulin."

THE monthly meeting of the Morgan County Medical Society was held April 15th at Martinsville. Dr. S. P. Scherer, of the New Highland Sanitarium, presented a paper.

THE Wabash County Medical Society held a meeting at the Young Hotel, North Manchester, April 17th. Dr. H. O. Shafer, of Rochester, presented a paper on "Borderline Surgical Cases."

THE Dearborn-Ohio County Medical Society held a meeting at Lawrenceburg, April 4th. Dr. Edwin L. Libbert, of Indiana University, presented a paper on "Indications for Caesarean Section."

THE Carroll County Medical Society held a meeting March 21st, at Flora, at which time the following officers were elected: President, Dr. H. Y. Mullin, of Rockfield; vice-president, Dr. A. C. Clauser, of Delphi; secretary, Dr. John A. Flora, of Flora.

THE Tri-County Medical Society met at Seymour May 1st at the Newsom hotel. A banquet was served, after which Dr. Curran Pope, of Louisville, gave an address with lantern slide illustrations on "The Diagnosis and Treatment of Diseases of the Colon."

THE thirteenth annual meeting of the Union District Medical Society was held at the Westwood Country Club at Newcastle, April 25th. This society includes Fayette, Franklin, Henry, Rush, Union and Wayne counties. In Indiana, and Butler and Preble counties in Ohio.

THE Northeastern Indiana Academy of Medicine held a meeting at Gawthrop Inn, Kendallville, April 24th. Dr. Oliver S. Ormsby, of Chicago, presented a talk accompanied by lantern slides, his subject being, "The Diagnosis and Treatment of Parasitic Diseases of the Skin."

THE new \$85,000 Morgan County Memorial Hospital was formally opened to the public on April 13th. Addresses were given by Dr. Charles P. Emerson, and Dr. Samuel E. Earp, both of Indianapolis. The sum of \$10,000 was donated

to the hospital by Mr. Hussey as a memorial to his son.

THE second annual meeting of the American Child Health Association will be held in Kansas City, Missouri, October 15th, 16th and 17th in the Grand Avenue Temple. Several meetings will be held in conjunction with the Kansas City Clinical Society which will also convene that week.

THE Muncie Academy of Medicine held its regular meeting at the Hotel Roberts, Muncie, April 11th. Dr. Amy L. Daniels, of the Medical Department of the University of Iowa, addressed the meeting. This meeting was held in conjunction with the Indiana State Home Economics Association.

THE semi-annual meeting of the Union District Medical Society was held at the Westwood Country Club, Newcastle, April 24th. Papers were presented by Drs. G. H. Smith, of Newcastle; C. A. Coleman, of Dayton, Ohio; C. W. Rutherford, of Indianapolis; Martin H. Fischer, of Cincinnati, and Herbert Thompson, of Richmond.

THE Huntington, Blackford, Wells and Grant County Medical Societies held a meeting at Warren, May 6th. Dr. Charles D. Humes, of Indianapolis, presented a paper on "Neuro-Psychiatric Problems of Medicine and Surgery." Dr. James H. Stygall, also of Indianapolis, addressed the meeting on "Legislative and Educational Propaganda."

IT is announced that the class of 1906 of the Medical Department of Indiana University will hold a reunion at the time of the Indianapolis session of the Indiana State Medical Association. Those members who intend to be present at the reunion are asked to communicate with Dr. Charles D. Humes, Hume-Mansur Building, Indianapolis.

THE Muncie Academy of Medicine held a meeting at the Hotel Roberts, May 9th. Dr. Allen B. Kanavel, of Chicago, presented a paper, his subject being, "The Differential Diagnosis of Major Neuralgias of the Face with a Discussion of Surgical Treatment of Tic Douloureux." Drs. Joseph Rilus Eastman and Larue D. Carter, Indianapolis, were discussants.

At the invitation of the Massachusetts Institute of Technology, a working conference in Health Education is to be held June 23rd to 28th, at Cambridge, Massachusetts. The conference, called by the Health Education Division of the American Child Health Association, will be limited to 100. Registration must be made in advance. Address Emma Dolfinger, 370 Seventh Avenue, New York City.

In accordance with their custom of several years, Eli Lilly & Company, of Indianapolis, are entertaining graduating classes in medicine and pharmacy from various schools. The students are taken through the plant and shown modern methods of manufacture used in the preparation of drugs. Nine schools have this year sent their graduating classes to the Lilly Laboratories as guests of Eli Lilly & Company.

THE second annual meeting of the Woman's Auxiliary of the American Medical Association will be held in Chicago, June 10th-13th. All meetings will be held at the Edgewater Beach Hotel. The wives of all members in good standing in the American Medical Association are eligible to membership in the Woman's Auxiliary and are invited to affiliate. Mrs. S. C. Red, 817 Caroline Street, Houston, Texas, is president.

ESSAYS in competition for the Samuel D. Gross prize of fifteen hundred dollars will be received until January 1st, 1925. The prize is awarded every five years to the writer of the best original essay, not exceeding one hundred and fifty printed pages, octavo, in length, illustrative of some subject in surgical pathology or surgical practice, founded upon original investigations, the candidates for the prize to be American citizens. Essays should be sent to "Trustees of the Samuel D. Gross Prize of the Philadelphia Academy of Surgery, care of the College of Physicians, 19 South 22nd Street, Philadelphia."

REPORTS are wanted of cases of personal injury from chlorinated lime, with such detail as may be practicable as to the circumstances and results of the accidents. Recent legislation in several states requires chlorinated lime to be labeled poison, and pending legislation in Congress contemplates an extension of such labeling. On behalf of manufacturers and distributors of chlorinated lime, however, it is contended that accidents do not occur and that chlorinated lime is not poisonous. Reports should be addressed to the Bureau of Legal Medicine and Legislation, American Medical Association, 535 North Dearborn Street, Chicago, Ill.

In addition to the articles already enumerated, the following have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association:

Abbott Laboratories:

Procaine-Epinephrine Ampules, 1 Cc. (Abbott).

Armour & Co.:

Anterior Pituitary Tablets, 2 grains (Armour).

Pituitary Tablets, 2 grains (Armour).

Parathyroid Tablets, 1-10 grain (Armour).

Lehn & Fink:

Sagrotan.

Eli Lilly & Co.:

Iletin (Insulin-Lilly) U-40.

A. Lumiere Laboratories:

Cryogenine.

Mallinckrodt Chemical Works:

Neoarsphenamine-Mallinckrodt, 0.15 Gm. Ampules.

Neoarsphenamine-Mallinckrodt, 0.3 Gm. Ampules.

Neoarsphenamine-Mallinckrodt, 0.45 Gm. Ampules.

Neoarsphenamine-Mallinckrodt, 0.6 Gm. Ampules.

Neoarsphenamine-Mallinckrodt, 0.75 Gm. Ampules.

Neoarsphenamine-Mallinckrodt, 0.9 Gm. Ampules.

Neoarsphenamine-Mallinckrodt, 1.5 Gm. Ampules.

Parke, Davis & Company:

Pituitrin "S" (Surgical).

Ampules Pituitrin "S" (Surgical), 1 Cc.

Welty Company:

Deodorized Kerosene—Welty.

Wilson Laboratories:

Desiccated Parathyroid Substance—Wilson.

Tablets Desiccated Parathyroid Substance—Wilson. 1-20 grain.

Tablets Desiccated Parathyroid Substance—Wilson, 1-10 grain.

TRUTH ABOUT MEDICINES

NEW AND NONOFFICIAL REMEDIES

COD-LIVER OIL-SQUIBB.—It has a content of fat soluble vitamin—which is more than one hundred times that of best quality butter. For a discussion of the actions and uses of cod liver oil, see *Useful Drugs*. The average dose is 15 Cc. E. R. Squibb & Sons, New York. (*Journal A. M. A.*, April 5, 1924, p. 1123).

SAGROTAN.—A liquid composed of chlorocresol 8 per cent, chlorxylenol 4 per cent, soap 22 per cent, alcohol 9 per cent, and water 57 per cent. Sagrotan is an antiseptic and germicide. The germicidal efficiency of sagrotan is stated to be 2.5 times that of an equal quantity of phenol. While the germicidal efficiency of sagrotan is almost equal to that of compound solution of Cresol U. S. P., it has the advantage over this preparation in that it is almost odorless; also, it is claimed to be less toxic. Lehn & Fink, New York.

PROCAINE—EPINEPHRINE AMPULES. 1 Cc.—Procaine-Abbott, 0.02 Gm., epinephrine 0.00004 Gm. in Ringer solution, 1 Cc. The Abbott Laboratories, Chicago. (*Journal A. M. A.*, April 12, 1924, p. 1199).

DEODORIZED KEROSENE—WELTY.—Kerosene which has been treated so as to remove the odorous constituents of commercial kerosene. Because of its solvent action on fats, deodorized kerosene—Welty, is proposed for use as a pediculocide and as a means of removing dandruff and the detritus of wounds. Welty Company, Chicago.

ANTERIOR PITUITARY TABLETS—ARMOUR, 2 GRAINS.—Each tablet contains desiccated pituitary substance (anterior lobe)—Armour. (See *New and Nonofficial Remedies*, 1924, p. 226), 2 grains. Armour & Co., Chicago.

PITUITARY TABLETS—ARMOUR, 2 GRAINS.—Each tablet contains desiccated pituitary body—Armour (see *New*

and Nonofficial Remedies, 1924, p. 226), 2 grains. Armour and Company, Chicago.

PARATHYROID TABLETS—ARMOUR, 1-10 GRAIN.—Each tablet contains desiccated parathyroid gland—Armour (see New and Nonofficial Remedies, 1924, p. 224), 1-10 grain. Armour & Co., Chicago.

PITUITRIN "S" (Surgical).—A slightly acid aqueous extract of the posterior lobe of the pituitary body of cattle, approximately six times the strength of Solution of Hypophysis U. S. P., containing 0.5 per cent of chlorbutanol as preservative. For a discussion of the actions and uses of pituitary preparations, see Pituitary Gland, New and Nonofficial Remedies, 1924, p. 225. The preparation is supplied in the form of ampules pituitrin "S" (surgical), 1 Cc. Parke, Davis & Co., Detroit. (*Journal A. M. A.*, April 19, 1924, p. 1265).

PROPAGANDA FOR REFORM

THE RESISTANCE OF MALARIA TO QUININ.—In 1917 reports began to appear that English soldiers in the tropics were being attacked by malaria that quinin would not cure. A report was published that quinin was ineffective in cases that were complicated by dysentery. An extensive study has demonstrated that quinin will cure malaria and that dysentery does not prevent the cure. In these cases the physician administered the quinin by mouth and made sure that it was swallowed. A study of the intramuscular injection of quinin demonstrated that necrosis of the muscle always occurred and that the absorption was less satisfactory than when the drug is given by mouth. It was shown that there was a profound fall in blood pressure when quinin is introduced intravenously, and one case of death and one case of serious sepsis are reported. It was also found that quinin is too irritating to be administered by rectum. (*Journal A. M. A.*, April 5, 1924, p. 1125).

ANTIPNEUMOCOCCIC SERUM TYPES 1, 11 AND 111, AND POLYVALENT.—The New and Nonofficial Remedies' description of antipneumococcus serum stated that thus far only the Type 1 serum seemed to be on reasonably secure clinical ground. In consideration of favorable reports on the use of antipneumococcic serum which, in addition to the Type 1 organism, also represented Types 11 and 111, and Group IV, the Council of Pharmacy and Chemistry accepted such "polyvalent" serums. At its 1921 annual meeting, the Council considered the available evidence for the use of antipneumococcus serum. The conclusion was reached that there was a preponderance of evidence against the employment of a serum which represented organisms other than Type 1. Accordingly, the Council has omitted from New and Nonofficial Remedies all antipneumococcic serum which represented organisms other than Type 1. (*Journal A. M. A.*, April 5, 1924, p. 1138).

MATAMEL.—The statement of composition of Matamel which appears in the advertising of the Newton Laboratories is practically the same as that claimed for Agmel at the time. While Agmel was said to be obtained from the sap of Agave Americana, Matamel is stated to be derived from another species of Agave, namely, Agave atrovirens Karw. An analysis of Agmel made for the Council of Pharmacy and Chemistry in 1912 showed the preparation to be a kind of molasses containing a small quantity of formic acid. No alkaloids were found, nor more than a trace of protein matter. At that time the opinion was expressed that the therapeutic value of Agmel was probably nil. (*Journal A. M. A.*, April 5, 1924, p. 1139).

J. BERNARD KING'S RADIUM FRAUD.—For some years one, J. Bernard King, has been defrauding the public by selling earth as a cure for all the ills of the flesh under the claim that it was a radium salt. A quietus has been put on King's scheme through the issuance of a fraud order debarring him from the use of the United States mails, not only under his own name, but under the name

of the "International Radium Company" and "Radium Products Company." King called his product "Ray-Cura," and claimed that it consisted of radium sulphate found "in the mountains of North America." Ray-Cura was marketed in cloth covered pads which were composed of little sacks of a light colored substance of the consistency of flour. The alleged curative power existed in what Mr. King called radium emanations from this substance. The government investigation brought out that the contents of a pad which sold for fifteen dollars, cost less than six cents. The product was found not even to be radioactive and gave forth no radium emanation. (*Journal A. M. A.*, April 12, 1924, p. 1215).

THE PHARMACOLOGY OF CARBON TETRACHLORID.—The most recent claimant for recognition as a means of removing hookworms is carbon tetrachlorid. The moderate cost of this chemical has enhanced its popularity. As the product appears in commerce in a variety of forms for use for different purposes, the A. M. A. Chemical Laboratory studied the quality of the market supply and elaborated standards that might serve to identify products suitable for medicinal purposes. As a result of this study, the Council on Pharmacy and Chemistry adopted standards for carbon tetrachlorid medicinal and listed the brands that complied with these standards. The remedy is comparatively safe, though serious symptoms, and even death, have been reported from its use, especially in patients addicted to the use of alcohol. Pharmacologic investigation has shown that the substance is relatively nontoxic because it is not readily absorbed from the intestinal canal. Severe intoxication results if the drug is introduced into the tissues directly through the circulation, as by inhalation, or if its absorption is favored by the presence of fats or of alcohol in the stomach and intestines. Hence, alcohol and fats—even milk, perhaps—are to be avoided when carbon tetrachlorid is administered. (*Journal A. M. A.*, April 19, 1924, p. 1268).

PARATHYROID GLAND THERAPY.—The administration of parathyroid gland has been reported of value in the treatment of a number of cases of tetany following the operative removal, or the injury of the parathyroid gland. It has prevented the attacks of tetany and of infantile tetany, and seemed at times to have prolonged life, or to have saved it, while the injured glands regained their functions. It has been stated to be of value in some cases of gastric tetany, although in other cases the results were negative. Parathyroid gland has been used by some one or another at some time (and claimed to be of value), for conditions such as varicose ulcers, gastric, duodenal and cervical ulcers, tuberculosis, sinus of the hip, paralysis agitans, eclampsia, etc., but that such disorders are regularly and favorably affected by parathyroid gland administration is a conclusion unsupported by controlled clinical evidence. (*Journal A. M. A.*, April 19, 1924, p. 1286).

TOLYSIN OMITTED FROM N. N. R.—Tolysin is the proprietary name under which the Calco Chemical Company markets its brand of neocinchophen. The Council on Pharmacy and Chemistry agreed to recognize this proprietary name, first, because the Calco Chemical Company promised to use novatophan (under which name the drug was introduced), or neocinchophen (the New and Nonofficial Remedies' name) as a synonym, thus avoiding, in a measure, confusion concerning the identity of the substance on the part of physicians, and second, because at that time the firm was the only manufacturer of neocinchophen in the United States. Before Tolysin was accepted the Council required the discontinuance of the claim that the drug is free from cardiac depressant and renal-irritant action, except when limited amounts are used. Despite this requirement, advertising recently issued for Tolysin implies that it is free from toxicity. Further, the Calco Chemical Company determined to break its agreement to use neocinchophen or novatophan as a synonym. The Council has omitted

Tolysin from New and Nonofficial Remedies because (1) it is marketed with unwarranted therapeutic claims, and (2) by the omission of the established synonym, neocinchophen (or novatophan), the physician is likely not to appreciate the character of the drug and its relation to cinchophen. (*Journal A. M. A.*, April 26, 1924, p. 1381).

BOOK REVIEWS

THE ANTIDIABETIC FUNCTIONS OF THE PANCREAS AND THE SUCCESSFUL ISOLATION OF THE ANTIDIABETIC HORMONE-INSULIN. By J. J. R. Macleod, professor of Physiology, University of Toronto, and F. G. Banting, Research Professor, University of Toronto. Published under the auspices of the Wayne County Medical Society, Detroit, Michigan, 1923, by the C. V. Mosby Company, St. Louis. Cloth, price \$1.50.

Perhaps all that need be said about this little book is that it is the Beaumont Lecture on the pancreas in its relation to digestion and metabolism. It tells the story of the discovery and isolation of insulin and its employment in the treatment of diabetes mellitus. Permanent and world-wide recognition of this splendid accomplishment in medicine has been made by the 1922 award of the Nobel prize to Professors Macleod and Banting, thereby specifying their work as the most noteworthy for the year in the domain of medical science. This little monograph, therefore, is a historical record of insulin by its discoverers and will prove of interest to every practitioner of medicine the world over.

PRINCIPLES OF VITAL STATISTICS. By I. S. Falk, Ph.D., Department of Public Health, Yale University. Illustrated. Cloth, price \$2.50. Philadelphia and London: W. B. Saunders Company, 1923.

This little book deals with the broad principles underlying the subject of vital statistics and discusses the matter in a manner that is understandable to one who does not want to delve in mathematics. It virtually is an analysis of collected material by men of intelligence and judgment and will be of service to all those who are interested in public health work. The final chapter on the interpretation of statistics and the errors and fallacies of statistics is an interesting one in conjunction with the subject of morbidity and mortality. The author keeps away from a discussion of heredity and environmental influences, as he considers that those conditions belong in a controversial field. The book concludes with a comprehensive bibliography.

THE MORTALITY EXPERIENCE OF INDUSTRIAL POLICY HOLDERS. 1916-1920. Published by the Industrial Life Insurance Companies of America, with offices in New York. 1923.

This is published as a contribution to the public health move in America by five well-known industrial life insurance companies. In reality it is a study of the causes of death of insured wage-earners and a careful analysis of the findings. It should be of interest to all those who are engaged in the advancement of community well being. Some interesting facts are brought out concerning the cause of death and duration of disease, the occupation of the insured, the age and the family relations. The findings are especially valuable in that they relate to a specific group of the population, mainly the wage-earners.

METHODS IN MEDICINE. Manual of the Medical Service of George Dock, M.D., Sc.D., formerly professor of medicine, Washington University School of Medicine and physician-in-chief Robert A. Barnes Hospital, St. Louis. By George R. Hermann, M.D., Ph.D., Instructor in Medicine, University of Michigan. Illustrated. 522 pages. Cloth, \$6.50. C. V. Mosby Company, St. Louis, 1924.

This is an excellent book, as might be expected when it covers in detail the medical service of a prominent teacher and clinician. We can do no better than quote the author who says that "the manual is intended to be a practical ward or bedside guide, an outline of sound minimal requirements in the complete, systematic diagnostic study; a system of essential emergency, scientific, therapeutic and dietetic management; and directions for the ever-important and vital preservation of the valuable data in the record of each patient." The material collected has been condensed, but sufficient details are given for the purpose of illustrating the methods employed and the general interpretation of the results. Part one is devoted to administrative methods, which include the part played by the resident physician and the clerks, with notes and suggestions for history taking, physical examination and laboratory work. Part two consists of the special methods of clinical and laboratory investigation. Part three outlines acceptable therapeutic methods, with emergency measures and subsequent treatment and management. Part four includes practical dietetic methods, with practical diet lists. Part five concerns a composite history of the case.

It would be difficult to pick out any part of this work that is worthy of special commendation inasmuch as the presentation of the subject is so practical and interesting as to give room for nothing but approval. It really covers the management of a case from beginning to end, and while a good deal of the information given applies with particular emphasis to hospital work or clinics having unlimited equipment and facilities for the most far-reaching investigation, yet much of practical value can be obtained for use in ordinary private practice. The indications for and the technic of doing many of the laboratory and functional tests are given in detail together with indications for such attention. Special chapters are devoted to the principles governing nephritis, diabetes mellitus and poisoning. There are also interesting chapters on hydrotherapy, the x-ray, and general rules for the use of "Dock's 20 drugs."

While it may be argued that much of the book applies to institutional work yet the whole forms such a satisfactory basis for private practice as well as institutional work that it will prove very instructive to any medical man.

THE NORMAL CHILD. ITS CARE AND FEEDING. By Alan Brown, M.B., physician-in-chief to the Hospital for Sick Children, Toronto, Canada. 250 pages. Cloth, price \$1.25. New York City, The Century Company, 1923.

This book is written by a well-known specialist in the treatment of diseases of infancy and childhood, and it is intended as a guide for mothers who desire and should have trustworthy information concerning the care and feeding of her child. It deserves popularity.

THE NEW DIETETICS. A GUIDE TO SCIENTIFIC FEEDING IN HEALTH AND DISEASE. By John Harvey Kellogg, M.D., LL.D., F.A.C.S., Superintendent of the Battle Creek Sanitarium and President of Battle Creek College. Second revised edition. Cloth. 1000 pages. Modern Medicine Publishing Company, Battle Creek, Michigan, 1923.

This is a second and revised edition of a book that first was published less than two years ago. It represents the principles and practices concerning nutrition and dietetics carried out at the Battle Creek Sanitarium, where abundant opportunity is offered for doing research work in this branch of medicine. In fact, the author and his associates have made an intensive study of foodstuffs and their effects upon the human body, and have brought out a number of facts concerning the particular foodstuffs best suited to meet any dietetic need which may be indicated in any condition of health or disease. These facts relating to human nutrition are presented in such a way as to be of greatest service to the physician,

trained nurse, intelligent housewife and every student of nutrition as well as the professional dietician. Numerous tables have been prepared, by the use of which the dietary may be balanced not only for protein, fats and carbohydrates but also for cellulose, iron and lime, and even acids and bases. The author admits the fact that some of his ideas and methods differ widely from those currently recognized and employed, but insists that they are not simply theoretical or experimental since their value has been proven by constant use in an institution where dietetics plays a prominent part in successful treatment. In fact, he claims that the practices are based upon biologic principles which only need a fair trial to demonstrate their value. Substantial support of many recognized authorities is claimed. The entire work bears the stamp of originality, and is written in such a forceful way as to demand the attention of the reader. Furthermore, if experience and studies and analytical consideration of nutrition and dietetics counts for anything, the author's conclusions are worthy of serious consideration.

CARE OF THE BABY. By J. P. Crozer Griffith, M.D., Professor of Diseases of Children in the University of Pennsylvania. Seventh edition, thoroughly revised. 478 pages, with 104 illustrations. Cloth, \$2.50 net. Philadelphia and London: W. B. Saunders Company, 1923.

A review of this well-known book is unnecessary. Suffice it to say that the author has given an authoritative manual to mothers and nurses on the subject of the care of the baby. The book has enjoyed wide-spread popularity and has been published in seven editions, some of the editions being reprinted several times. The last or seventh edition, just from press, represents a complete revision in order to bring the teaching abreast of the present time, and new illustrations have been inserted to take the place of older ones in order to better elucidate the text. The subject matter has been presented in a plain and easily understood manner, and all statements are scientifically accurate.

Certainly there is no more reliable guide for mothers who are anxious to inform themselves in regard to the best way of caring for their children in sickness and in health.

INTRODUCTION TO THE STUDY OF MENTAL DISORDERS. By Francis M. Barnes, Jr., M.A., M.D., Associate Professor of Nervous and Mental Diseases in the St. Louis University Medical School, Neurologist to St. Mary's Hospital, St. Louis, etc. Second edition. Cloth, price \$3.75. St. Louis: C. V. Mosby Company, 1923.

This book has been well named. It is not a treatise on psychiatry but is merely a forerunner of such. It gives in brief outline the more important features of some of the more common types of mental diseases. In reality it gives the fundamentals of psychiatry briefly, concisely and without unnecessary detail.

RUBBER AND GUTTA PERCHA INJECTIONS. By Charles Conrad Miller, M.D. 99 pages. Illustrated. Cloth, \$1.75. Oak Printing and Publishing Co., Chicago.

This is a preliminary report of the use of various forms of rubber and gutta percha subcutaneously for the purpose of raising the depressed nasal bridge and filling in various tissue deficiencies. The book contains illustrations and descriptions of the types of material used, the manner of preparation, and special syringes used by the writer.

IMPOTENCY, STERILITY AND ARTIFICIAL IMPREGNATION. By Frank P. Davis, Ph.B., M.D. Second edition, revised and enlarged. Cloth, \$2.25. C. V. Mosby Company, St. Louis, 1923.

This book discusses briefly the subject of sexual disorders but more particularly the process by which the

sexual mechanism is set in motion. Many debatable subjects are considered, but the main object, as expressed by the author, is to place physicians in a position where they can advise their patients intelligently concerning sexual troubles of which he says there is too much mystery, too much doubt, and too much guess work concerning treatment.

THE EXAMINATION OF PATIENTS. By Nellis B. Foster, M.D., Associate Physician to the New York Hospital; Associate Professor of Medicine at Cornell University, College of Medicine. Octavo of 253 pages, illustrated. Cloth, \$3.50 net. Philadelphia and London: W. B. Saunders Company, 1923.

The author of this book considers every invalid a special case requiring special investigation in order to make the proper diagnosis and prescribe rational treatment. A correct diagnosis is absolutely essential to success in treatment and it is the aim of the author to help practitioners of medicine to make better diagnoses. The author very properly calls attention to the necessity of refinement of diagnosis as brought about by the use of the trained senses of touch, sight and hearing. Rarely can laboratory tests alone reveal the nature of disease, though they may support other evidences, and as an example of this the author cites the fact that not even a throat culture which is positive for Klebs-Löffler bacilli is alone sufficient to demonstrate that an individual has diphtheria. He might be a carrier or the organism might be non-pathogenic. Special emphasis is made upon the necessity of careful history taking and system in conducting the examination. The author has well carried out his aim to present clearly and concisely the facts on which accurate diagnosis rests.

NATIONAL HEALTH SERIES. 20 volumes. Edited by the National Health Council and published under its auspices. Flexible fabrikoid, average number of pages, 70. Price per set, \$6.00 net; per volume \$0.30 net. Funk and Wagnalls Company, publishers. New York, 1924.

In order to provide the general public with authoritative books on health at low cost the National Health Council has arranged with the Funk Wagnalls Company for the publication of the National Health series. This series will contain twenty books on all phases of human health by the leading authorities in the United States. Already ten volumes have come from press and are ready for distribution to the public. They cover the following subjects: Man and the Microbe; The Baby's Health; Personal Hygiene; Community Health; Cancer; The Human Machine; The Young Child's Health; The Quest for Health; Taking Care of Your Heart; Food for Health's Sake.

The books are, as stated in the announcement, authoritative in every sense of the word and deserve wide distribution. Each book is written in such a way as to be understood by the average lay reader, and being of pocket size, flexible binding, and costing only thirty cents each, should have a wide sale.

INTRODUCTION TO MEDICAL BIOMETRY AND VITAL STATISTICS. By Raymond Pearl, Ph.D., Professor of Biometry and Vital Statistics, Johns Hopkins University. Octavo of 379 pages, illustrated. Cloth, \$5.00 net. Philadelphia and London: W. B. Saunders Company.

This book by a well-known authority will be of special interest to those who are studying the laws and conditions affecting longevity of human life and the statistical study of biologic variation. The author attempts to show how the application of modern statistical methods may be of use to the medical man in helping him to draw correct conclusions from his facts as based upon the laws of human mortality, morbidity, natality and demography. To many the book may seem dry, as it deals with medical

statistics, and yet the subject is one that should receive careful consideration because the laws of probability help in diagnosis, and statistics lend the authority that is necessary for the acceptance of certain deductions.

THE INFANT AND YOUNG CHILD. By John Lovett Morse, M.D., Edwin T. Wyman, M.D., and Louis Webb Hill, M.D., of Harvard Medical School and Children's Hospital, Boston, 12 mo. of 271 pages, illustrated. Cloth, \$1.75 net. Philadelphia and London: W. B. Saunders Company, 1923.

This book is a product of three well-known pediatricians, in which the authors have endeavored to tell mothers what they should know in order to feed intelligently and care for their children from the time the children are born until they are six years old. The book contains a wonderful fund of information concerning the health, development and habits of infants and young children. We unhesitatingly recommend it.

DISEASES OF THE SKIN. By Frank Crozer Knowles, M.D., Professor of Dermatology, Jefferson Medical College; Dermatologist to the Philadelphia, General, Presbyterian, Children's and Babies' Hospitals; Lieutenant-Colonel Medical Reserve Corps, U. S. A., etc. Second edition, thoroughly revised. 595 pages. 229 illustrations and 14 plates. Cloth, price \$6.50. Philadelphia and New York: Lea and Febiger, 1923.

This is the second edition, revised, of an excellent textbook on diseases of the skin. It has the virtue of being concise, thus making a medium-sized volume easy to handle and affording quick reference. It contains the late advances in the dermatological field, including the last word on roentgen ray therapy, protein tests, and a description of the treatment and diagnostic tests of syphilis. For its size it is very comprehensive.

PRACTICAL CHEMICAL ANALYSIS OF THE BLOOD. By Victor C. Myers, M.A., Ph.D., Professor and Director of the Department of Biochemistry, New York Post-Graduate Medical School and Hospital. Second revised edition. Illustrated. Cloth, Price \$4.50. St. Louis: C. V. Mosby Company, 1924.

In this day and age no physician can overlook the chemical analysis of the blood as of definite value in the diagnosis and treatment of disease, and within recent years the advances in this field have been so marked that an up-to-date treatise on the subject will be appreciated by the medical profession, and laboratory workers in particular. The book, as the author well says, will serve a useful function in indicating why and how certain chemical blood analyses should be made. This second revised edition represents the late advances of the subject.

PRINCIPLES OF BACTERIOLOGY. By Arthur A. Eisenberg, A.B., M.D., Director of Laboratories, St. John's Hospital; Pathologist to Lakewood Hospital; Serologist to St. Ann's Hospital, Cleveland, Ohio, etc. Second edition. Illustrated. Cloth, price \$2.25. St. Louis: C. V. Mosby Company, 1923.

This little book, while ostensibly prepared for nurses, in reality is a ready reference book for students and practitioners of medicine, as it covers the latest facts of bacteriology and does not include any subjects that are still in controversy. This second edition is an improvement over the first in that it includes some of the very latest information concerning certain tests, the manner of making them and their interpretation. This includes the known precipitation tests for the diagnosis of syphilis, the colorimetric method of titrating culture media, improved methods of staining, blood typing, and the application of anaphylaxis to the diagnosis of hay fever and bronchial asthma.

THE PATIENT'S VIEWPOINT. By Paluel J. Flagg, M.D., 182 pages. Cloth, price \$1.30. The Bruce Publishing Company, Milwaukee, Wisconsin, 1923.

A large percentage of the men practicing medicine are concentrating their attention upon the diseases to the exclusion of the suffering patient. We are altogether too prone to employ exhaustive laboratory methods to the exclusion of the personal attention and suggestive therapeutics which the sick require, and our efforts altogether too often bring about results not in keeping with the efforts put forth. In consequence our patients, becoming discouraged or distrustful, seek the services of the exponents of the various pathies. Here, as the author says, they find that which they crave, a recognition of the personality, satisfaction for the mental distress which they experience, and treatment for the symptoms of which they complain. We have come to ignore this aspect of the situation and it is time that we waken to the idea that we must treat our patient as one who is sick instead of looking upon him merely as the possessor of an interesting disease. There may be those who will say that it is a mistake to parade our inequalities and follies but how else are we to correct them?

DIAGNOSTIC METHODS. By Herbert T. Brooks, A.B., F.A.C.P., Professor of Clinical Medicine, College of Medical Evangelists, Los Angeles, California. Fourth edition. 52 illustrations. Cloth, price \$1.75. St. Louis: C. V. Mosby Company, 1923.

This book is, as the author says, intended for medical students, hospital interns and physicians who have a limited amount of time to give to laboratory work. It discusses only the up-to-date and absolutely reliable laboratory tests. The subject matter is presented in as few words as possible without leaving out anything considered as essential. Four editions are an indication of the well-deserved popularity of the book.

NEUROLOGIC DIAGNOSIS. By Loyal E. Davis, M.D., Associate Professor of Surgery, Northwestern University Medical School, etc. 173 pages with 49 illustrations. Cloth, \$2.00 net. W. B. Saunders Company, Philadelphia and London, 1923.

This little book gives the student a grasp of the fundamental principles involved in neurologic diagnosis. It is a bridge between the textbook upon the anatomy of the nervous system and the clinical text of nervous diseases. Neurologic diagnosis is considered from the viewpoint of correlating symptoms with known anatomical and physiological facts. A good portion of cases and the discussion of the symptoms and manifestations in these cases will prove very instructive.

CLINICAL GUIDE TO BEDSIDE EXAMINATION. By Dr. II. Elias, Dozent and Assistant at the First Medical Clinic of the University of Vienna, Austria; Dr. N. Jagic, Extraordinary Professor and Chief Physician to the Sofienspital, Vienna, Austria, and Dr. A. Luger, Dozent and Assistant at the Second Medical Clinic of the University of Vienna, Austria. Arranged and translated by Wm. A. Brams, M.D., Chicago, Adjunct in Medicine, Michael Reese Hospital. Cloth, price \$1.50. New York: Rebnan Company, 1923.

This little book of 135 pages furnishes the physician and student with a guide for the physical examination of a patient at the bedside. It emphasizes the necessity of being thorough and permitting nothing to escape observation by the physician. It is excellent in every particular.

DISEASES OF THE SKIN. By Richard L. Sutton, M.D., LL.D., professor of Diseases of the Skin, University of Kansas School of Medicine, etc. Fifth edition, revised and enlarged. 1069 illustrations with eleven colored plates. Cloth. Price \$10.00. C. V. Mosby Company, St. Louis, 1923.

This is a well-known and popular textbook on diseases
(Continued on Adv. Page xx.)

Ligatures

(Armour's)

**SURGICAL
CATGUT**



In Surgical Sutures

SATISFACTION lies in strength, sterility and uniformity of absorption, features to be attained only when the smooth or detached side of selected sheep gut is employed. Right now the price of raw material is very high. Some manufacturers are even- ing up things by using the mesenteric as well as the smooth portion of the intestine. None of the cardinal qualities can be guaranteed when the rough side is employed. This is obvious to the man who has studied the manufacture of catgut.

In the Armour Laboratory nothing but the smooth, straight side of the gut is put into surgical ligatures. This material is sterilized chemically and thermally at opportune stages and finally the finished suture is, after being placed in tubes, subjected to a degree of heat that means death to all spores and organisms.

The Armour Non-boilable Catgut Ligatures are as flexible as a silk cord, and are of full strength and absolute sterility.

*Specify Armour's Non-boilable Cat-
gut Ligatures. You will be satisfied.*

PITUITARY LIQUID

(Armour)

the Premier Product of the kind, 1 c. c. am-
poules—surgical, ½ c.
c. ampoules—obstet-
rical.

SUPRARENALIN SOLUTION 1:1000

Astringent and hemo-
static.
Stable and non-
irritating.

Headquarters for the Endocrines
and other Organotherapeutics

ARMOUR AND COMPANY
CHICAGO

WALLACE-SOMERVILLE SANITARIUM

Succeeding the Petty & Wallace Sanitarium

MEMPHIS, TENN.

WALTER R. WALLACE, M.D.

WILLIAM G. SOMERVILLE, M.D.

FOR THE TREATMENT OF

**DRUG ADDICTIONS, ALCOHOLISM
MENTAL AND NERVOUS DISEASES**

Located in the Eastern suburbs of the city.

Sixteen acres of beautiful grounds.

All equipment for care of patients admitted.



Louisville Neuropathic Sanatorium

INCORPORATED

1412 South Sixth Street, Louisville, Kentucky

An ethical institution with modern equip-
ment for the care and treatment of Mental
and Nervous Diseases. Situated in resi-
dence portion of the city, yet quiet and
retired. Rates furnished upon request.

W. E. GARDNER, A.B., M.D.

Medical Director

W. E. BENDER, M.D.

Resident Physician



BOOK REVIEWS

(Continued from page 168)

of the skin. It is presented in a comprehensive and at the same time concise manner. This fifth edition represents not only a revision of previous editions but the addition of much new material occasioned by a rapidly advancing department of medicine. The description of diseases, including symptomatology and diagnosis, is presented in a simple though clear manner, and particular emphasis has been placed upon pathology and treatment. Due credit has been given to the work of others in the field of dermatology, but obsolete methods and those of questionable value or of theoretical value only are either omitted altogether or discussed briefly. The work is well illustrated, many of the illustrations being in color. The book will prove a valuable addition to the library of any practitioner of medicine.

ELEMENTS OF SCIENTIFIC PSYCHOLOGY. By Knight Dunlap, professor of experimental psychology in the Johns Hopkins University, Baltimore. Illustrated. Cloth. Price \$3.50. C. V. Mosby Company, St. Louis, 1922.

According to the author, this book has been designed for the specific purpose of introducing the student to the elements of psychology and giving him a firm ground on which to build, dealing with general problems of psychology only. The psychology of today is a science of the conscious responses of the organism, and it is only the modern form of psychology which can contribute effectively to our problems of physical science, education, industry, the arts, and to social problems. This book, written by a profound student and intended primarily for college students, merely deals with the foundations of psychology and not with applications. However, while it is a book for beginners, it will be found of assistance to any one who is interested in the subject.

DISEASES OF THE DIGESTIVE ORGANS. Charles D. Aaron, Sc.D., M.D., Professor of Gastroenterology and Dietetics in the Detroit College of Medicine and Surgery. Third edition, thoroughly revised. Illustrated with 164 engravings, 48 roentgenograms and 13 colored plates. Cloth. Price \$10.00. Lea and Febiger, Philadelphia, 1921.

We have little to add to the praise given in reviewing the earlier editions of this work. The profession at large is becoming increasingly interested in the subject of gastroenterology and accordingly a book that gives the results of special research proves a welcome addition to the libraries of all those who are interested in

medical science. The author discusses in consecutive manner the diagnosis and treatment of digestive diseases, beginning with the diseases of the mouth and taking up in succession the pharynx, esophagus, stomach, liver, gall bladder, bile ducts, pancreas, small intestine, vermiform appendix, cecum, colon, sigmoid, flexure, rectum and anus. The many new methods of investigation, physical, chemical, microscopical and clinical, are described, but only the practical, the trustworthy and the helpful results of research work are given prominence. The discussion of therapeutic measures is especially enlightening and adds much to the value of the book, in presenting present day knowledge of the subject. The illustrations are excellent and the 48 roentgenograms materially aid in the elucidation of the text.

OPIATE ADDICTION. By Edward H. Williams, M.D., Formerly Associate Professor of Pathology, State University of Iowa. 194 pages. Cloth. \$1.75. The MacMillan Company, New York, 1922.

This book is just what its title indicates, namely a small treatise on the handling and treatment of opiate addiction. It gives a working basis for a sensible handling of cases that fall under this heading. An interesting feature of the book is the discussion of the efforts to suppress the use of narcotics by legislation, and the author seems to be quite correct in his assumption that the Harrison Narcotic Law has failed in its attempt to lessen the number of addicts, for after six years under this legislation it is estimated that there are more addicts than ever before, due to the illicit traffic in opiates by the peddlers who do not hesitate to make addicts by the distribution of free samples for the sake of future profits. We therefore have added criminality to what was formerly simply immorality. This leads to the discussion of the underlying cause of opiate addiction which deserves consideration at the hands of medical men, for it is an abnormal mental state in which the addicts are not wholly responsible for their shortcomings. The author advocates the gradual reduction treatment, to be carried on by clinics conducted along similar lines to the experimental ones tried with such a measure of success in Los Angeles and San Diego. He even admits that as a practical solution of the whole narcotic problem, the matter should be placed in the hands of the United States Public Health Service, where it will be under the control of intelligent physicians who also have legal authority to enforce any clinical or custodial measures that seem necessary and who have facilities to work out its laboratory and clinical problems without hindrance. The book concludes with some very interesting comments and conclusions.

Indiana State Medical Association

(Continued from page 168)

ENTERTAINMENT COMMITTEE—John R. Newcomb, Indianapolis, Chairman; A. L. Marshall, Indianapolis; Ernest Rupel, Indianapolis; John Sluss, Indianapolis.

FINANCE COMMITTEE—Alfred Henry, Indianapolis, Chairman; Harry Langdon, Indianapolis; E. E. Padgett, Indianapolis; W. W. Garshwiler, Indianapolis; Robert Moore, Indianapolis.

HOTEL AND HOUSING COMMITTEE—A. E. Guedel, Indianapolis, Chairman; LaRue Carter, Indianapolis; A. B. Graham, Indianapolis; C. R. Strickland, Indianapolis.

GOLF COMMITTEE—W. S. Tomlin, Indianapolis, Chairman; H. H. Wheeler, Indianapolis; Goethe Link, Indianapolis; Thos. L. Sullivan, Jr., Indianapolis.

PUBLICITY COMMITTEE—Thos V. Keene, Indianapolis, Chairman; Norman Jobes, Indianapolis; J. H. Taylor, Indianapolis; Thos. J. Beasley, Indianapolis; C. S. Goar, Indianapolis.

MEETING PLACE COMMITTEE—Charles N. Combs, Terre Haute, Chairman; Wm. A. Doeppers, Indianapolis.

RECEPTION COMMITTEE—All members of Indianapolis Medical Society.

MILITARY COMMITTEE—J. R. Eastman, Indianapolis, Chairman; LaRue D. Carter, Indianapolis; W. M. Stout, Newcastle; Charles N. Combs, Terre Haute; Carl Habich, Indianapolis; R. G. Hendricks, Indianapolis; J. S. Robison, Winchester.

BUREAU OF PUBLICITY—W. N. Wishard, Indianapolis, Chairman; F. W. Cregor, Indianapolis, Secretary; David Ross, Indianapolis; J. H. Stygall, Executive Secretary.

ADVISORY BOARD TO BUREAU OF PUBLICITY—(Appointed by Council)—S. E. Earp, President Indiana State Medical Association; E. M. Shanklin, Chairman of the Council; A. E. Bulson, Jr., Editor Journal of the Indiana State Medical Association.

THE JOURNAL

OF THE

INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

ISSUED MONTHLY under Direction of the Council

ALBERT E. BULSON, Jr., B.S., M.D., Editor and Manager

OFFICE OF PUBLICATION: 406 West Berry Street, FORT WAYNE, INDIANA

VOLUME XVII

JUNE, 1924

NUMBER 6

ORIGINAL ARTICLES

SECONDARY ANEMIA, A CONSIDERATION OF CERTAIN CAUSATIVE CONDITIONS*

CLYDE L. CUMMER, M.D.
CLEVELAND, OHIO

Anemia is regarded properly only as a *symptom*. It is important because it is readily apparent, serving to direct the attention of patients still well enough to be around to the fact that something is wrong. It is valuable when it stimulates the physician to a chain of investigation leading to a discovery of the underlying cause.

Certain types of anemia, such as pernicious anemia and chlorosis, are separated as clinical entities, and classified as "primary anemias," which is a tacit confession on the part of medical science of its inability to determine causes. In the vast majority of anemic individuals, impairment in the quality of the blood is due to discoverable causes. These causes are exceedingly numerous, to be sure, and their detection often requires all the diagnostic acumen available, even when aided by the most helpful modern clinical methods. As Minot recently said in his valuable article on the anemias in the *Oxford Medicine*, "The conditions which may cause a simple chronic anemia are practically as numerous as the diseases which may affect man."

In the differential diagnosis of a case of severe anemia, we usually think first of pernicious anemia. While the cause is unknown, the clinical picture is clearly defined and a carefully taken history with a thorough physical examination and intelligent study of the blood picture usually makes diagnosis possible. Important exceptions are severe anemia of pregnancy and that caused by the *dibothriocephalus* infection, in which the blood pictures may be so nearly like that of pernicious anemia that only the existence of pregnancy or the discovery of the parasite or its ova in the stool, as the case may be, give a clue to the correct diagnosis. Chlorosis, too, is ordinarily not difficult to recognize because of its sex and age incidence and the usually typical

history, though we have not infrequent cases called chlorosis in which a causative factor, such as tuberculosis, is discovered later. After we have definitely excluded these two conditions, we have before us a wide range of possible causes among the secondary anemias.

The blood picture given by the ordinary hematological methods (corpuscle counts, hemoglobin determinations, and study of stained films) does not give pathognomonic findings. The hemoglobin content of the individual red blood cells as measured by the color-index, which is so helpful in recognizing pernicious anemia, aids little in the secondary anemias because of its variability. While the number of erythrocytes is usually reduced and the hemoglobin falls to an even greater extent in the majority of cases, this is by no means constant, for diminution in erythrocytes and hemoglobin may be parallel and rarely the hemoglobin is reduced less than the red cells. The number of leucocytes varies with associated conditions; study of the stained film gives little information, possibly an increased central pale area and an infrequent normoblast constituting the only variations from normal.

It may be profitable to review the factors instrumental in producing anemia.

FUNDAMENTAL CAUSATIVE FACTORS

I. Actual blood loss

- (1) Hemorrhage, acute or chronic

II. Defective blood formation

- (1) Improper food
- (2) Toxins from
 - (a) Infections
 - (b) Chronic diseases, such as kidney and liver
 - (c) Poisons, as lead and benzol
 - (d) Malignant diseases

III. Abnormal blood destruction

- (1) Hemolytic actions of
 - (a) Infectious toxins of microorganisms, e. g., sepsis, malaria, *dibothriocephalus latus*
 - (b) Poisons, as potassium chlorate, acetanilid, trinitrotoluene
 - (c) Unknown toxins, as in malignancy and pregnancy

*Presented before the Section on Medicine of the Indiana State Medical Association at the Terre Haute Session, September, 1923.

It is apparent that in a given case, there is often a combination of influences co-operating to deplete the blood.

To summarize briefly the possible conditions underlying an anemia, the following incomplete list is presented:

CONDITIONS CAUSING ANEMIA

I. Infections:

- (1) Febrile conditions, especially
 - Acute rheumatic fever
 - Typhoid fever
 - Acute septic conditions, especially when due to streptococcus hemolyticus,
 - Chronic suppurations
 - Tuberculosis
 - Malaria
- (2) Afebrile conditions:
 - Chronic suppurations
 - Focal infections
 - Syphilis

II. Infestations:

- (1) *Dibothriocephalus latus*
- (2) *Uncinaria americana*
- (3) *Trichinella spiralis*

III. Actual hemorrhage:

- (1) Acute, from injury, operation, etc.
- (2) Chronic
 - Malignant and non-malignant conditions of
 - Nose
 - Throat
 - Gums
 - Lungs
 - Stomach
 - Intestines
 - Rectum
 - Kidneys
 - Uterus
 - Bladder
 - Vagina

IV. Intoxication:

- (1) Mercury
- (2) Lead
- (3) Arsenic
- (4) Benzol
- (5) Potassium chlorate
- (6) Acetanilid
- (7) Amido- and nitro- compounds of phenol, toluol, and benzol.
- (8) Autogenous poisons
 - Chronic infections
 - Chronic disease, not infectious:
 - Nephritis
 - Jaundice
 - Hepatic cirrhosis
 - Malignancy
 - Pregnancy

V. Impaired nourishment:

- (1) Insufficient or improper food.
 - "Anemia of the poor"
 - Systemic disease or impaired digestion
 - Malignancy
 - Nephritis
 - Diabetes
 - Chronic infectious disease

In addition we must bear in mind the possibility of chronic hemolytic jaundice, either acquired or congenital, and Banti's disease, consideration of which does not fall within the scope of this paper.

Even if your patience permitted, a full consideration of the possibilities herewith presented obviously is rendered impossible by lack of time; simple mention of many of them is sufficient. My dissertation will be limited to a consideration of cases not manifestly due to recent acute processes, emphasizing certain causes which stand greater chances of being overlooked.

An interesting query would be, what is the determining factor in the causation of anemia? We know that there are none of the conditions enumerated which invariably produce anemia, and it is difficult to understand, for example, why typhoid fever will be followed by anemia in one individual, while in another with apparently as severe an infection, anemia is slight or absent. Ordinarily, however, the gravity of the anemia is related to the amount of blood lost, the severity and nature of the infection, or the nature and intensity of the poisoning.

In the broad class of anemias due to *infections* it is unnecessary to refer to tuberculosis, except in passing, since the anemia occurring in this condition while often well marked, probably would be among the less conspicuous of the symptoms presented. However, pulmonary tuberculosis should always be borne in mind, and the lungs carefully examined. This is especially true in the presumed cases of chlorosis in young women.

Focal infection receives much more attention than it did ten years ago, when I saw a severely anemic woman about 55 years old who was deemed by her physician to have pernicious anemia. This opinion I was inclined to share, for her color-index was about normal and the erythrocytes showed definite irregularities in size, shape, and staining, though there were no nucleated red blood cells. My attention, however, was too closely focussed upon the blood-picture to the exclusion of the patient. Several months later the family physician informed me that having a troublesome upper molar, the patient had seen a dentist who had extracted the tooth. A large amount of foul pus poured from the socket and a probe was passed readily into the antrum of Highmore. When this cavity had been drained, the anemia disappeared.

At the present time the great importance of

focal infections as a cause of all kinds of obscure symptoms is generally recognized and a patient with an unexplained anemia would be submitted almost certainly to a searching examination, especially of teeth, sinuses, and pelvic organs.

Syphilis is another infection which we should remember but often forget in connection with anemia. My interest in this subject was aroused about two years ago and a fairly exhaustive study of the literature showed that the following types of late syphilitic anemia could be distinguished. We are not including the anemia of florid secondary syphilis.

1. Simple anemia without splenomegaly.
2. Simple anemia with splenomegaly.
3. Anemia resembling pernicious anemia.
4. Anemia of congenital syphilis.

In the recognition of a simple anemia without splenomegaly, confusion is often introduced by the difficulty in absolutely excluding possible causes other than the latent syphilitic infection, as will be shown by a case report which we recount later. However, when an individual is found who shows a positive Wasserman reaction in whom no other causes can be found and whose blood findings become normal after the administration of anti-syphilitic treatment, remaining so for several years, one is forced to conclude that the correct diagnosis was really syphilitic anemia. Such a case was that of Mrs. L. L., whom I saw first in May, 1918. The Wassermann reaction was strongly positive, the red cells numbered two million per cm., and the hemoglobin was 37 per cent. A complete resume' of her history cannot be given now and I shall state merely that with a relatively slight amount of anti-syphilitic treatment, the blood condition greatly improved so that two years later the red cell count showed four and a half million red cells per cm., while the hemoglobin was 80 per cent. It is interesting to note that after one of the arsphenamine injections, the red cells and hemoglobin showed a definite primary drop.

Syphilitic anemia with splenomegaly has been the subject of a number of articles in the medical literature of the last fifteen years, and isolated cases have been reported in detail. The clinical picture is similar to that of Banti's disease, except that improvement ordinarily follows anti-luetic treatment in syphilitic splenomegaly. In a recent study coming from Guy's Hospital, London, Osman reports two cases and comments that "In any case it has been definitely established that syphilis may give rise to a clinical picture indistinguishable from splenic anemia."

It has been my good fortune to have observed two cases of this type. One improved greatly with mercury, given intramuscularly; the blood count became practically normal and the spleen regained its normal size. The other has not done well and the anemia and the size of the spleen

have shown little change in spite of arsphenamine intravenously and mercury intramuscularly.

The occurrence of a syphilitic anemia giving the picture of pernicious anemia is seriously questioned. The majority of writers feel that when such findings are obtained, syphilis is not the causative factor but is coincidental.

The anemia of congenital syphilis should be remembered; discussion is hardly necessary.

Malaria is not seen frequently in this latitude, at least in the vicinity of Cleveland, so that one becomes inclined to minimize the possibility of its occurrence. A year ago I saw a young girl of sixteen, short of breath and very pale, whose skin had the greenish tint we associate with chlorosis. She complained of chills coming at practically the same time every afternoon. She lived in a small village near Lorain, Ohio; had never been in a notoriously malarial district, nor indeed more than one hundred miles from home, making it difficult to believe that she could have acquired malaris. The periodicity of the chills was suggestive, however; the spleen was definitely enlarged, and examination of the blood showed numerous organisms of tertian malaria.

All writers stress the severity of the anemia seen in infestation with the fish tape-worm (*Dibothryocephalus latus*). In the United States we are accustomed to view this as an interesting but remote possibility, so uncommon that mentally we place it with many other rare diseases which we hear about but never expect to see. This point of view is not safe, since these cases are seen not infrequently, especially in the larger centers into which there is constant immigration from regions where smoked or raw fish is eaten and *Dibothryocephalus* infection is extant.

In 1916 an extremely pale Finn was admitted to the medical wards of Lakeside Hospital complaining of weakness and pallor. He was drowsy and answered questions slowly. In many ways the blood picture resembled that found in pernicious anemia. The red cells were 1,080,000; the white cells 2,400 per cm.; the hemoglobin 40 per cent.; the color-index 1.6. Marked poikilocytosis, anisocytosis, and polychromatophilia were present. Normoblasts and megaloblasts were found. Examination of the stool showed abundant ova of *dibothryocephalus latus*. Appropriate treatment resulted in the expulsion of the parasite. The patient was given blood-transfusions and the blood-count was practically normal at the time of his discharge from the hospital, six week later.

Study of the case histories at Lakeside Hospital showed that there have been eleven cases of this infestation discharged from the hospital in the seven years from 1916 to 1922 inclusive, out of a total of 10,210 discharges.

While considering infestations it is well to mention the anemia accompanying and following

trichinosis, another condition seen not infrequently.

The possibility of hook-worm infestation must be held in mind especially in the Southern States.

Small hemorrhages, frequently repeated, often produce severe anemia. The regularity of the loss and the fact that it may be merely the exaggeration of a physiological process seem to result in the patient's ignoring it as an explanation for the obvious pallor and the bothersome subjective symptoms. An example of this is menorrhagia. In many women no other cause can be found after the most searching examination.

A case seen recently on Dr. Dexter's service at St. Alexis Hospital is an excellent example.

Mrs. S., married, age 47 years, complained of weakness, pallor, and swelling of the feet and face, which had been increasing for several weeks. She had had no serious illnesses previously. Physical examination showed markedly pale skin and mucous membranes, and oedema of the feet, legs, and eye-lids. The heart was enlarged to the left and there was a systolic murmur at both apex and base. Blood pressure was 95, systolic, and 60, diastolic. The pulse was regular, of good volume, and the rate was 80 per minute. The abdomen showed nothing out of the ordinary and the reflexes were normal.

The blood picture was that of a severe secondary anemia. The red cells were only 1,520,000 per cm.; the white cells 8,900 per cm.; the hemoglobin 15 per cent. The color-index was 0.5. Careful study of the stained films showed some variation in size and shape of the red blood cells; the central pale area was much increased; polychromatophilia was slight; there were no nucleated red blood cells; parasites were not found.

In taking the patient's history, it was ascertained that her monthly periods lasted two weeks and that there was a profuse flow of blood. Not desiring to rely entirely upon the history, which is often unreliable, it was thought advisable to rule out all other causes before definitely accepting menorrhagia as the causative factor. Therefore complete laboratory and roentgenological studies were made. The urine was negative, containing no pus. The stools showed no occult blood, parasites, or parasitic ova. The Wassermann reaction on the blood-serum was negative on two occasions. X-ray examinations of the teeth showed one suspicious and one definite abscess. Fluoroscopic examination of the heart and lungs revealed nothing unusual. Plates of the gastro-intestinal tract made after bismuth meals and enema gave normal findings, except for slight colonic stasis. Vaginal examination was unsatisfactory because of the rigidity of the abdominal muscles, but the cervix was normal to touch and the uterus freely moveable, though it was impossible to map out its outlines accurately.

After receiving three transfusions of matched blood without unfavorable reaction, the patient's condition improved greatly, the red cells increasing to 4,120,000 and the hemoglobin to 62 per cent. When this point had been reached, however, the monthly period came, a large amount of blood was lost, and the blood count promptly dropped. Although hysterectomy was advised as the only means of removing the cause of this disabling anemia, it was refused.

Hemorrhoids are well recognized as producing anemia. Many sufferers minimize the amount of blood lost from this source and therefore the history may be quite misleading. Some two years ago I saw a very anemic patient. Careful examination conducted by a capable internist, supplemented by all indicated laboratory and roentgenological examinations, failed to reveal a cause. Gastric carcinoma had been suspected on account of the vague stomach symptoms but was ruled out. The Wassermann reaction gave strongly positive results and on the strength of this mercury was given. Slight improvement followed but was not maintained and then iron was used with good results for a time. The patient's general condition was greatly improved and the red cells were maintained at a higher level, the count ranging from three and one-third to over five millions per cm. and the hemoglobin from 53 to 87 per cent. In seeing the patient from time to time he casually mentioned the presence of hemorrhoids. Evidently he regarded them as somewhat annoying but entirely trivial condition, yet on close questioning stated that he lost some blood at times. Study showed that the drops in blood-count were usually coincidental with rectal bleeding. Finally the man was convinced of the desirability of an operation. It has been five months since this was performed. The blood picture approximated normal soon after the operation and has remained so up to the present writing. In this instance we have an anemia which is evidently the resultant of two causes:

Bleeding from other portions of the intestinal tract especially that occurring in peptic ulcer, hardly needs more than passing mention, because of its known frequency and because it would be less readily overlooked than some of the other conditions which have been mentioned.

The anemia in malignancy may be produced by any one of several factors, or by a combination of them. There is the possibility of bleeding from ulcerated surfaces when the new growth is in certain locations, notably the stomach or intestines; there is the possibility of interference with important normal physiological processes, as for example the interference with digestion by a tumor of the pylorus of the stomach; and there is the possibility of remote effects due to toxins. The anemia occurring in gastric carcinoma is especially

confusing at times to the clinician, since pernicious anemia is so frequently accompanied by gastric symptoms and since the stomach contents in both cases are usually devoid of free hydrochloric acid. The anemia of certain of the sarcomata is extraordinarily severe, especially when the osseous system is involved.

Another class of anemias of great importance particularly to those practicing in the industrial centers, is the anemia due to the *intoxications*. The anemia of lead poisoning is well known and in a painter or battery-worker the medical man would naturally have this possibility in mind. Indeed in these individuals the anemia may not be the sign which forces the patient to seek medical advice as these patients are often incapacitated by lead colic or the peripheral palsies. In women and children, however, lead poisoning readily escapes attention unless there are other striking signs or the woman's occupation puts one on his guard. With recent industrial development lead is more widely used than heretofore, for example in automobile finishing, in battery manufacture, in enameling hardware, etc. Women, moreover, are employed in ever increasing numbers in all manufacturing pursuits, a fact which must not be overlooked.

A girl of eighteen was admitted to the wards of St. Alexis Hospital complaining of pain in the lower abdomen and in the muscles of both thighs. She was obviously anemic. Eleven weeks previously she had started work as an enameler in a stove plant. The blood examination showed 2,880,000 red blood cells per cm. and 52 per cent. hemoglobin. The differential count was not of interest but in examining the stained film many red blood cells were found with punctate basophilic stippling. The patient was given the usual eliminative treatment. When last seen, there was marked improvement in the quality of the blood and the stippled cells had disappeared.

One would hardly think an infant subject to lead-poisoning. I am permitted to recount the history of a child one year old through the courtesy of Dr. Harold Ruh. He was directing the feeding of the baby and on one of his visits noticed that the paint was chipped off the child's bed. Investigation showed that the child had amused herself by biting it off, and Dr. Ruh remarked to the mother that care should be used or the baby would be poisoned with lead. Very shortly after this the family went east for the summer and almost immediately the baby became very anemic, nervous, and irritable. She was seen by two physicians, who stated that the child had a secondary anemia but stopped short of detecting the cause. Naturally the mother did not connect the pallor with the paint episode. It was not until the still very anemic child was brought back to Cleveland, when all the facts were put together.

that the diagnosis of anemia due to lead-poisoning was made.

Benzol is recognized as producing a very severe anemia. On account of its depressing effect on the bone-marrow, it enjoyed passing vogue several years ago in the treatment of myeloid leukemia, but practically has been abandoned as a therapeutic agent because its effect was hard to control, there being a distinct danger of its doing more than merely arresting the formation of leucocytes and of actually producing an aplastic anemia.

Now aplastic anemia is exactly the result obtained in certain industrial cases, and in many instances the condition has proven fatal. Benzol is used in the rubber industries and in the dry-cleaning trade. With benzol anemia the patient is acutely ill, and the blood picture is that of an aplastic anemia showing no evidence of blood regeneration, accompanied by marked diminution in the leucocytes.

CONCLUSION

An attempt has been made to emphasize the importance of anemia as a diagnostic sign and to stress the necessity of first excluding the possibility of the primary anemias and then establishing the causative condition. The more common conditions producing anemia have been enumerated and certain of them have been discussed briefly with especial attention to those which are more readily overlooked in long-standing cases.

The study of a case of anemia requires primarily a carefully taken history including a consideration of the occupation and a complete physical examination with particular reference to probable foci of infection and attention to the possibility of hemorrhoids and undue uterine bleeding. Oftentimes exhaustive laboratory and roentgenological examinations are required. An obvious preliminary, prerequisite to excluding pernicious anemia, is a count of the red and white blood cells, the estimation of hemoglobin, and study of stained films. As part of the latter, search should be made for blood parasites, stippled red blood-cells, and nucleated red blood-cells. A blood Wassermann test should be done routinely. The stools should be examined for occult blood, parasites, and parasitic ova. The stomach contents obtained after test-meal may yield data of value in indicating the presence of gastric ulcer or malignancy. If definite information be not secured by other means, the teeth and nasal sinuses should be submitted to x-ray examination, and if other lines of investigation prove fruitless, the gastro-intestinal tract should be investigated by the same means.

DISCUSSION

DR. MILES F. PORTER, JR. (Fort Wayne): I was particularly interested in the detailed report of the one-year-old infant with lead-poisoning for

I recently had a similar experience, doubled. I was called to see two children in consultation with a colleague of mine. They had been artificially fed and apparently had thrived on the food but continued to be very anemic. After fussing with them several times he concluded that they had secondary anemia, but eventually they had an acute attack of abdominal pain. I went upstairs to the children's room, the first time I had seen them there, and noticed that their wooden beds had been carefully wrapped with some kind of binding. I asked the mother if this was done because they bumped themselves and she replied, "No, but we do that so that they will not eat the beds up entirely." I unwrapped a part of the covering and noticed that the paint had been eaten entirely off. I then suggested that they get beds made of iron and that they be painted over with asafetida or something of that nature. These were the first cases I had heard of in which lead-poisoning occurred in infancy.

There are only two points which occur to me as worthy of emphasis in addition to what Dr. Cummer has said. The essayist has done everything necessary but I think that pernicious anemia and secondary anemia are not always easy to differentiate from the blood picture alone. I also think that we get too much accustomed to depending upon the blood picture alone. A severe anemia which occurs secondary to anything is very similar to the pernicious anemia so far as the blood is concerned, but the combined history does not accompany the secondary anemias, except rarely, and grouped together it never does. In the group of 4,800 cases it was concluded that if all those things were considered it was not difficult to differentiate primary and secondary anemia.

Another point is in regard to syphilis. It has been definitely shown in the same group of 4,800 cases that syphilis does not produce primary anemia, but it does produce the secondary type. One blood examination may be very like a primary anemia, but repeated blood examinations show a wide range of that picture, some of them being like primary anemia while others are not. In that group these findings were reported and they are interesting in connection with syphilis. In 4,800 cases only twenty-five cases were shown to have a reasonable picture of primary anemia due to syphilis. Secondarily, out of twenty-five cases thirteen could be ruled out as cases of pernicious anemia in their course and of the remaining twelve cases it could be said that it was a concomitant disease. It was true that syphilis was acquired during the course of a primary anemia in three cases. With the modern tests for syphilis, with the ice box incubation, and the slightly positive tests it is particularly easy to mislead one as to anemias of various sorts. It was remarked by the Mayo Clinic that the pos-

itive Wassermann reactions in extreme anemias were common enough in the absence of all signs of syphilis to be entirely disregarded.

DR. W. D. ASBURY (Terre Haute): The study of anemias is stimulating, because it is sometimes difficult to determine the cause as well as the cure of anemia. If the case presents the blood picture and clinical picture and history of a pernicious anemia without a cause of secondary anemia its cure has not yet been found. If a logical cause for the anemia can be found, as in cases of diphtheriocephalus latius, hook-worm, or other parasites, or some bleeding point, the removal of the cause will automatically cure the anemia. A casual examination will not suffice in these cases, but they often require time and much work. A history of remissions and glossitis, shrinking of the tongue and a typical blood pressure would generally rule out a secondary anemia.

I believe that the time will come when the primary anemias will be classified as secondary because the cause will be known, and until that time transfusions, splenectomies, arsphenamine and all other now known remedies will be at best only palliative. There are many cases diagnosed pernicious anemia by the most careful clinicians which have lived for years and died of other causes. These cases were perhaps spontaneously cured secondary anemias.

DR. JOHN LOVETT MORSE (Boston): I just want to ask Dr. Cummer if the baby with lead-poisoning spent the summer in Blue Hills, Maine. If so, I was one of the men who saw the child.

DR. CUMMER: Yes, Dr. Morse, it did.

DR. R. M. MOORE (Indianapolis): I wish to refer to a condition frequently overlooked, namely, subacute bacterial endocarditis, which produces secondary anemia.

All acute rheumatic fever cases and conditions such as chorea and repeated throat infections should have frequent blood counts made. If the red cell count gradually decreases, especially when associated with a slight elevation in temperature, one should think of subacute bacterial endocarditis. Look for petechia, especially around the neck and under the arms. Study fundi for retinal hemorrhage. Palpate for enlarged and tender spleen. Feel for tenderness in the tips of the fingers and toes, also look for discoloration under the finger nails and toe nails. Make frequent microscopic examination of the urine for red blood cells, the so-called thrombotic nephritis. The peculiar pallor which the victim of this disease presents is almost pathognomonic.

I recently observed a young man who was having marked hematuria and proved by blood culture and clinical findings that he had subacute bacterial endocarditis. This diagnosis was verified at autopsy. Not infrequently the first symptom in this type of case is a hemiplegia.

DR. CLYDE L. CUMMER (closing): I do not think the laboratory results should be made paramount. I am one of those who try to bridge the gap between the laboratory and the clinic. If the laboratory man does not know clinical medicine, and vice versa, we will not correlate very well. It is unwise to rely on the laboratory man to diagnose pernicious anemia, but many clinicians unfortunately think that the laboratory man should be able to do it. I have often been told that a patient had carcinoma when he really had pernicious anemia.

The reason I did not consider treatment was because it was not in the scope of the paper. The multiplicity of causes makes the consideration of treatment very difficult. We first must remove the cause; if this is done the anemia very often gets well. Of course we must remove the infection wherever possible.

I am very glad that Dr. Moore brought up the question of subacute endocarditis. That and the acute form both produce very severe forms of anemia. Thrombotic complications produce hemorrhage, particularly from the kidney. Occasionally these cases come under the care of the physician because of the kidney lesion, and we should keep this in mind.

THE CONDUCT OF THE SECOND STAGE OF LABOR*

J. P. GREENHILL, M.D.
CHICAGO

It is somewhat strange that in no branch of medicine does the physician, young as well as old, feel as confident of securing results as he does in obstetrics. Certainly in no other field of medicine does the doctor take as much for granted and risk as much as he does in the practice of midwifery. The reason for this is that childbirth is considered to be a normal process. However, in the large proportion of women this is not so. In the United States, according to De Lee, about 20,000 women and more than 100,000 babies lose their lives yearly as the result of childbirth. Furthermore, of the women who recover, fully one-half suffer for years from the effects of labor. Approximately one-half of our gynecological operations are necessitated by the damage which results from labor. Nowhere in nature do we find a normal process which is associated with such a frightful number of deaths, with as much trauma and as much permanent invalidism as results from childbirth. For these reasons we cannot call labor a normal process.

Fortunately, however, most of the deaths and injuries which result from confinement are preventable. Careful observation of patients during pregnancy and the proper conduct of labor will very considerably reduce the maternal and fetal

mortality and morbidity. Prenatal care is not within the scope of this paper, but you will all agree that it is of prime importance. Prophylaxis is most essential in pregnancy and for its success education of the public is necessary. The layman must be made to realize that a labor case begins at the time of conception and that it is important for the pregnant woman to see a physician as soon as she is pregnant. Once in the hands of a physician the responsibility rests largely upon the latter. He must guide the patient through pregnancy so that she and her child can go through the ordeal of labor with a minimum of injury.

When labor begins the best place for the delivery is a hospital. Unfortunately most of our women are still delivered in their homes. Of prime importance for the physician who delivers his patients at home, is preparedness, not only in knowledge but also with instruments. You will all agree that asepsis and antisepsis are basic principles. In the home they are difficult to carry out but there is no doubt that they can be practiced there very effectively. The technique which our interns of the Chicago Lying-in Hospital and Dispensary use in the homes is a model for simplicity and effectiveness.

At the beginning of labor it is essential that a diagnosis of presentation and position be made, the heart tones should be counted and the amount of dilatation of the cervix should be determined, preferably by rectal examination. The blood pressure should be measured and the urine examined. The heart and lungs, if not previously examined, should be at this time. If there is evident disproportion between the child's head and the pelvis (and hydrocephalus can be excluded) cesarian section is, of course, indicated.

During the first stage of labor the general plan of treatment is one of watchful expectancy. This consists of lessening the strain of labor by morphine and scopolamin or heroin, seeing that the bladder and rectum are kept empty and that the patient takes nourishment. Of great importance is careful observation of the fetal heart tones. Throughout labor one must watch for signs of trouble. Nature usually throws out little signals which, if properly evaluated, give us a clue that something is wrong. This is particularly true in the second stage of labor. A large number of the 20,000 women who die yearly as the result of childbirth lose their lives because of mismanagement of the second stage of labor; and while a fair number of the 100,000 babies who die yearly at birth, die as the result of congenital defects, syphilis, toxemia and other causes, most of them die during the second stage of labor, or during efforts to terminate this stage. Besides this very large fetal mortality, many babies are injured, but not fatally, during delivery either by the natural powers or as more often happens by operative procedure.

*Presented before the St. Joseph County Medical Society, November 7, 1923.

What procedure shall we follow during the second stage of labor? By the second stage is meant that period which extends from the time of complete dilatation of the cervix to the time when the entire fetus is expelled. It is not always easy to tell when this period starts for bearing-down pains do not always indicate the beginning of the second stage, and neither does rupture of the membranes. Usually a few sharp pains accompanied by a show of bright blood indicate that the head is slipping through the cervix. When the second stage is reached, the patient and bed should be prepared for delivery and sterile instruments, solutions, cord tie, etc., should be placed near the bed. One should look after the bladder and bowels just as in the first stage. Once the second stage has begun, the physician should not leave the patient until delivery has been completed.

Essentially four main points are to be considered during the second stage, namely: asepsis and antisepsis, anesthesia, protection of the life of the child and preservation of the perineum.

All are agreed on the necessity of asepsis and antisepsis. As regards anesthesia there is almost unanimous opinion that women should be relieved of the pains of labor as much as possible but men differ in the type of anesthetic employed. It is inadvisable to give narcotic drugs, such as morphine during the second stage because of the likelihood of harm to the child. Inhalation anesthesia, which may be in the form of ether, nitrous oxide and oxygen, or chloroform is to be used. We generally prefer ether and advise against chloroform. With the beginning of each uterine contraction felt by the hand on the abdomen, a few whiffs of ether or of nitrous oxide are given and at the moment the head passes the vulva, the anesthesia is deepened.

As regards the preservation of the life of the fetus, it can be said with assurance that attention to the child during the second stage of ordinary labor will result in the saving of many lives. One should watch carefully for the first signs of asphyxia and this is done by listening to the fetal heart tones every five minutes or oftener when indicated. For this purpose we employ the De Lee-Hillis stethoscope which rests on the head and can be kept there during normal deliveries and forceps operations. Both hands remain free and sterile at all times even while the heart tones are carefully and constantly controlled.

After every spontaneous delivery of a full-term child there is some damage to the perineum. The urogenital septum is always ruptured, the connective tissue is torn in numerous places, the layers of fascia are loosened, the levator ani muscles are usually lacerated, and in general all the tissues are bruised. This condition is usually prevented by an episiotomy which should be performed in most primiparas with full-term babies and in multiparas where the pelvic floor simulates

that of primiparas. If an episiotomy is not done, tears may be minimized by delivering the head slowly and in forced flexion, to present to the pelvic canal the smallest circumference of the fetal head. We shall discuss episiotomy later on.

The second stage of labor at times may be complicated by atony of the uterus, particularly after a prolonged painful first stage. If the second stage lasts a long time fetal asphyxia may result from diminution in the placental area due to retraction of the uterus and the caput succedaneum becomes large, which indicates that the fetus is suffering from cerebral congestion. The mother may suffer a depressing effect on her nervous system from fatigue and worry over the lack of progress of labor. She may later develop a fistula due to pressure of the fetal head. If there is delay one should attempt to find the cause. If the patient has a pendulous abdomen a tight binder will help. Sometimes the exaggerated lithotomy position helps, for the thighs support the abdominal muscles and straighten out the fetus. The levator ani muscles are tightened, thereby facilitating anterior rotation of the occiput and the outlet of the bony pelvis is enlarged. The squatting Indian attitude may give the same result. It may be necessary to instruct the patient how to bear down during the pains or a hot enema may be of help. If the patient is tired ether may secure some rest.

If there is delay after the head is well down on the perineum, both hands may be spread evenly over the fundus of the uterus and gentle pressure exerted in the axis of the outlet, but only during uterine contractions. This method is not without danger for there may result rupture of the uterus, abruptio placentae, and injury to the abdominal viscera. Episiotomy should not be forgotten. If the above measures fail, forceps are indicated. In this country at least 75 per cent of all forceps operations are for this indication.

I have purposely avoided the mention of pituitrin in the above discussion. We never use this drug in the second stage of labor because of its dangerous effects. The only time pituitrin may be given is for uterine atony in multipara in whom the bony outlet is not contracted and when the head is on the pelvic floor. Even in this type of case we prefer the use of forceps because we can control the forceps, but we cannot always control pituitrin, even with anesthesia. Furthermore, in cases where the use of pituitrin might come into question, the forceps operations are very easily and quickly performed without injury to mother or child.

The above discussion had references to cases in which the fetal head was well engaged, perhaps visible. If in a primipara the head is not engaged, that is, if the lowest part of the fetal skull has not yet reached the spines of the ischia (which indicates that the largest plane of the head has passed the pelvic inlet) the treatment is much

more difficult. If the head cannot be made to enter the pelvis one might try the Walcher position. The patient sits at the very edge of a table with her legs hanging down. This, however, does not often yield results. In these cases high forceps operations and version and extraction are dangerous because of the frequency and extent of the necessarily inflicted lacerations. If both mother and child are in good condition, cesarean section is indicated, but one should attempt to recognize the necessity for cesarean section as early as possible. The longer the patient is in labor, especially if the membranes have ruptured, the greater the mortality and morbidity. In these cases, particularly, the cervical cesarean section is the operation of choice.

In a considerable number of cases, more than is usually recognized, there is an anomaly in position. This is mainly in the form of an occiput posterior. In these cases labor usually lasts a long time because the occiput must rotate 135 degrees instead of 45 degrees, hence the uterus becomes exhausted and the patient tired out. These patients should be given morphine and scopolamin in the first stage. Fortunately in most of these cases the head rotates anteriorly and delivers spontaneously. Despite this, however, more babies are lost from occiput posterior than from any other one cause. This is essentially due to failure in making a correct diagnosis early in labor and yet the diagnosis is relatively easy. First of all, the type of labor may give a clue. The pains are weak and irregular and early rupture of the membranes is frequent. The head remains high for a long time and even though strong pains occur the head may be rotated only part of the way and be arrested in the transverse diameter. Dilatation of the cervix is incomplete because the head does not fit well. Abdominally, a distinct hollow may be seen over the symphysis. The shoulder is far from the midline and the fetal heart tones are deep in the flank but may at times be heard on the opposite side. The small parts are very prominent anteriorly. Internal examination will reveal the head high up, partly deflected and the large fontanelle more accessible than usual because it is nearer the center of the pelvis. The small fontanelle is near the sacrum. The caput succedaneum may be so large that the sutures are hard to identify. In this event locate the ear and feel the curve of the tragus. The latter will always indicate the direction of the occiput. If there is no disproportion between the head and the pelvis the treatment is expectant until an indication for interference arises.

If the patient cannot deliver herself spontaneously after a reasonable length of time she should be narcotized. With the hand the fetal head should be rotated anteriorly before or after an episiotomy has been performed, then forceps should be applied and the head delivered. Where the bag of waters is intact and the head high but

there is no disproportion between the head and the pelvis, a version and extraction may be performed. If in such a case the labor has lasted a long time and the cervix is not fully effaced and dilated, especially if the patient is an elderly primipara in good condition, a low, cervical cesarean section should be done, otherwise the baby might be lost and the mother severely injured.

While it is generally advisable to follow a policy of watchful waiting in the second stage, just as in the first, one should not allow a woman to remain in labor too long. We should not wait to see what a patient can endure but simply what she can accomplish. To wait too long may mean death to both mother and child. On the other hand, because the patient makes a great deal of noise and the family insists that something be done, one should not interfere too soon. This would be meddlesome midwifery; but to interfere after a reasonable but not too prolonged test of labor is life-saving. A long second stage is conducive to the development of sepsis and to the thinning out of the lower uterine segment with the possibility of rupture of the uterus.

The dangers of the second stage to the child are numerous and almost every kind of injury has been caused by the forces of spontaneous or so-called normal labor. There have resulted fractures of the skull and long bones, rupture of the tentorium cerebelli, intracranial hemorrhages, retinal hemorrhages, facial paralysis, Erb's paralysis, rupture of the sternocleidomastoid muscle resulting in wry neck, rupture of the cord, etc. The most common danger, however, is asphyxia, the result of premature separation of the placenta or prolonged compression of the brain with intracranial hemorrhage. In general five per cent of all babies die during labor and a fair proportion of these occur in natural unassisted deliveries. Neurologists as well as obstetricians have for many years pointed out the connection between prolonged hard labors and epilepsy, idiocy, imbecility, cerebral palsy, and permanent disorders of the special senses. In fact, statistics seem to show that instrumental delivery is safer than prolonged, hard, unassisted labor; for it seems that the brief and moderate compression of the head in a skillfully performed forceps operation is less dangerous to the integrity of the brain than the prolonged pounding and congestion it suffers from a hard spontaneous delivery.

Recently at the Chicago Lying-in Hospital we began to make systematic neurological examinations of the newborn babies. Of the first fifty babies delivered by forceps, three per cent showed evidence of intracranial injury, whereas of the first fifty babies delivered spontaneously, twelve per cent showed evidence of injury. In other words, four times as many babies were injured by so-called normal deliveries as by forceps deliveries. This study is being continued. Furthermore, Schwartz in Germany showed that sixty-

five per cent of all babies who died before the fifth month of life showed macroscopic damage to the brain. These injuries were most marked in premature babies and in full term fetuses after long labors.

My plea, therefore, is for interference in the second stage by means of an episiotomy or an episiotomy and the application of forceps soon after the patient has demonstrated her inability to complete delivery herself. In cases where the occiput is still posterior when interference is resorted to, the occiput should be rotated manually before forceps are applied. An episiotomy should be made before rotating the head because it makes rotation and delivery easier. We shall, therefore, discuss in order episiotomy, manual rotation, and the use of forceps.

Episiotomy saves the child's head from prolonged compression, it shortens the duration of labor, it forestalls fetal asphyxia and it prevents ragged lacerations which are almost inevitable otherwise. Of the three types of episiotomy, namely, median, lateral and medio-lateral, we prefer the medio-lateral. With one or more cuts we divide the skin, vaginal mucous membrane, the urogenital septum with the constrictor cunni and transversus perinei muscles and the fascia over the levator ani muscles. Before making the cut, it is best to wait until the head has stretched the levator ani muscles. This is recognized by the opening of the anus and the dislocation of the anus downward and forward. A pair of scissors should be used. One blade is laid on the vaginal mucous membrane and the other rests on the skin midway between the anus and the tuberosity of the ischium, the cutting angle being at the median raphe'. The patient is given a few whiffs of ether or gas as the cut is made. In cases where the head is well down, delivery takes place as soon as the cut is made. In other cases forceps must be applied. The episiotomy is not repaired until after the expulsion of the placenta. It is then sutured with cat-gut layer by layer, in anatomico-surgical fashion, provided the asepsis has been perfect. In the home it is better to repair the episiotomy incision with figure-of-eight silk-worm-gut sutures which take in all the layers. Care must be taken to prevent instruments and suture material from coming in contact with the anus. To avoid such contact I devised a small metal anal shield. By means of a properly performed episiotomy and repair, almost virginal conditions are restored.

Manual rotation of the head is accomplished as follows: Two or four fingers of one hand obtain a hold on the baby's skull behind the ears and pull the occiput downward and forward. The other hand, which is on the outside, above the pubis, pushes the forehead toward the back part of the pelvis. When the occiput has been rotated anteriorly the inside hand keeps the occiput in place and also serves to guide the first forceps blade into

place. If this procedure is not successful, the patient is anesthetized and the whole hand, the palm of which is directed towards the baby's face, is passed into the uterus, pushing the head up and out of the pelvic cavity if necessary. With the tips of the fingers the posterior shoulder of the baby is rotated past the promontory of the sacrum to the front. The head moves with the trunk. The outside hand aids by pulling the anterior shoulder to the front. Then the inside hand leads the head down into the pelvis and the outside hand aids this by pressing downward on the occiput. Care must be exercised in order to avoid a prolapse of the cord. After bringing the head into its new position, it may be advisable to leave the case to nature for a few hours until the head has been moulded, the tissues softened and the head nearer the outlet. This greatly facilitates delivery, either spontaneous or instrumental.

If forceps are to be applied, five conditions must be fulfilled. First, there must be no disproportion between the baby's head and the mother's pelvis. Second, the cervix must be completely effaced and dilated, or nearly so. Third, the head must be engaged. Fourth, the bag of waters must be ruptured and fifth, the child must be living. After the application of the forceps blades and before they are locked, one should listen to the fetal heart. For this purpose the DeLee-Hillis head stethoscope is especially adapted. If the heart tones remain regular, the forceps are locked. If the heart tones change when the forceps are applied it usually means that a loop of cord is being compressed by the forceps. In this event the forceps should be removed and reapplied. If the heart tones again change it is better to deliver the child by version and extraction.

In doing a forceps delivery one should first of all be certain of the position of the occiput. Palpation of the baby's ears will always verify the diagnosis. The bladder should be catheterized before every forceps delivery. The operator should sit comfortably with the elbows at the sides and in making traction he should seldom use more force than is furnished by the biceps muscles. If much more force is necessary the probabilities are that the diagnosis of position is not correct. In this event the forceps should be removed and a careful examination made. Time should not be considered but one must listen to the fetal heart tones after every traction or two. Traction should be intermittent and not accompanied by pendulous or twisting motions. The line of traction should correspond with the axis of the parturient canal.

If manual rotation fails, the forceps should be applied in the transverse diameter of the pelvis and one trial traction made in the horizontal plane. The object is to observe the mechanism intended by nature. If the occiput tends to rotate anteriorly, the blades should be opened and

readjusted in a manner to favor anterior rotation. This readaptation of the forceps blades is repeated at intervals until the small fontanelle turns toward the symphysis pubis, then delivery is accomplished as usual. If during the first or trial traction the occiput tends to rotate posteriorly the head should be delivered with the occiput posteriorly else serious damage will result. When the head is to be delivered with the occiput posteriorly a deep episiotomy should be made to avoid extensive lacerations.

Face presentations sometimes give a great deal of trouble. Generally speaking, most face presentations deliver spontaneously with the chin anterior. In most of the cases where the chin is posterior at the beginning of labor, the chin rotates anteriorly and a spontaneous delivery results. Delivery of a full-term child with the chin posterior is almost out of the question. One should never attempt to deliver with forceps a face presentation where the chin is posterior. The face must always be rotated so that the chin is anterior or at least in the transverse diameter, before the forceps are applied. One may also convert a face presentation into an occiput presentation, then leave the case to nature or apply forceps and deliver. Probably the best treatment of face presentation for the general practitioner when interference becomes necessary is version and extraction. In all cases where the face delivers first, a deep episiotomy should be performed else extensive lacerations might result.

For breech cases a policy of expectancy should be followed in the second stage just as in the first, unless an indication for quick delivery arises. In multiparae very little trouble will be encountered in the majority of cases but in primiparae there is a large fetal mortality and a high maternal and fetal morbidity. One should not interfere until the buttocks have been delivered over the perineum unless a definite indication arises. In all primiparae if the baby is large, a deep episiotomy should be performed. Great haste is not essential and care should be taken to avoid fractures. No attempt should be made to deliver the arms until the anterior scapula is visible. Pulling on the child's neck should not be practiced as it may result in Erb's paralysis, fracture of the cervical vertebrae and other injuries. Pressure on the child's head from above is the essential thing in the delivery of the after-coming head but the pressure should not be exerted blindly. The head must be properly flexed before aid is given from above and much force should never be used. If the head is in the pelvic cavity and difficulty is encountered, one should not use force but forceps should be applied to the after-coming head. Hence, before doing a breech extraction (or a version and extraction) a pair of forceps should be sterilized with the other instruments.

There is very little room for a discussion of the treatment of the second stage of labor in

transverse presentations. One should always deliver a patient who has a transverse presentation as soon as there is complete dilatation of the cervix. This is nearly always accomplished by version and extraction.

Immediately after the child in any type of delivery is born, it is a good thing to give the mother an ampoule of pituitrin. This hastens separation of the placenta and saves blood. In addition, we usually give morphia and scopolamin at this time. This reduces the amount of ether or gas necessary for the repair of the episiotomy and also prolongs the narcosis for many hours, thus permitting the patient to have a restful sleep which helps abolish the memory of labor. After the expulsion of the placenta we give an ampoule of ergot. This also helps to make the field of repair bloodless.

A word about asphyxia neonatorum may not be amiss. By close observation of the fetal heart tones this can always be detected and timely interference will save most of the babies. If there is complete dilatation and the head is engaged, forceps with or without episiotomy is the method of choice; if the head is not engaged and the cervix is completely dilated, provided there is no disproportion, version and extraction is preferable.

If a child is born asphyxiated, it is not necessary to use forcible means to resuscitate it. First of all warmth is essential, hence a towel, preferably a warm one, is wrapped around the baby. The respiratory passages must be cleared of plugs of mucus and this is best accomplished by means of a tracheal catheter. If respiration does not begin spontaneously after this, air should be blown into the child's lungs through the tracheal catheter, but with extreme gentleness. These measures will resuscitate practically every baby which can be reanimated.

In conclusion I should like to repeat that my plea for shortening the second stage of labor is made in the interest of both mother and child. As I said before, we should not wait to see how much our patients can endure but simply how much they can accomplish. By no means does spontaneous delivery always imply an uninjured child. By timely interference we not only avoid a considerable amount of injury to mothers and babies but we also save lives.

POST-REFRACTIVE CONSIDERATIONS*

E. M. SHANKLIN, M.D.
HAMMOND

With the completion of the refraction the work of the ophthalmologist is but half finished. No doubt this will seem a radical statement, but I feel we have not fulfilled our duty to our patient until we have checked up the fitting of the frame. To put it another way, I believe the fitting of the frame is equally important with the refraction.

*Presented before the Section on Ophthalmology and Otolaryngology of the Indiana State Medical Association at the Terre Haute Session, September, 1923.

This is a matter that long has interested me, my first interest having been aroused by some very striking cases. One that came to me just a short time ago will serve to illustrate my point:

A young man came to me for an eye examination. He had a correction from a well-known oculist in a neighboring city. This oculist made the examination, gave the patient a prescription, and saw the patient no more. I made an examination under homatropine, obtaining practically the same findings as my confrere, but the patient insisted that he could not wear the correction. The cause was very apparent when I checked up his glasses. The dispensing optician had given him a 42 mm. lens, with a P. D. of 67 mm., whereas my measurements showed the P. D. to be 57 mm. The frame was proportionately incorrect in other details. With practically the same correction as had been given him previously, but mounted in a properly fitting frame, he was at once very comfortable with his glasses. The oculist who made the first examination failed in his duty to his patient in that he did not see that the patient obtained a proper fitting.

One other case will bring out another point I want to stress—the desirability of a knowledge of frame fitting. On going into the office of a confrere some time ago I was asked to refract a presbyopic patient with whom the oculist was having no little trouble. On completing the refraction we found our records were the same, but the patient insisted he could not read with the glasses containing this correction. The reason was found readily. Aside from a faulty P. D., a bridge that was 2 mm. too high and some 3 mm. too far back, the frame was well fitted. On correcting these defects the patient was perfectly comfortable with his glasses. The glasses originally were made and fitted by a dispensing optician.

Just here I should state that I am not decrying the dispensing optician, so long as he gives the patient what is ordered by the oculist, but I do insist that we should ourselves determine what the patient should wear, whether we dispense our own glasses or not.

In addition to the mechanical phase of the matter of frame-fitting we should give due consideration to the cosmetic effect of glasses. As one physician recently expressed it, "One who is crippled has a right to the most inconspicuous correcting apparatus." The individual who has to wear glasses is a cripple, and has the right to expect the most inconspicuous frame he can get. With the wide range of frames and lens shapes now obtainable the oculist should give careful consideration to the choice of a frame and lens shape. A long, narrow face calls for a smaller lens than the round or full oval face. Prominent eyebrows usually call for a leaf shape lens, though occasionally the nose broadens out to such an extent that the pear, or sometimes the almond shape

is much better. A large, full face frequently is fitted with a full oval lens, 40 to 44 mm. size. This but accentuates the size of the face and the cosmetic effect is lost.

Just recently I had a case that called for unusual care in frame-fitting. The measurements were P. D. 61; bridge above 6 mm. and forward 8 mm., with a width of 21 mm. The nose was unusually broad, so I used the almond-shaped lenses. When the glasses came in they looked like a freak job, but when fitted to the patient they seemed built into the face.

Due consideration must be given to facial irregularities in prescribing frames. Taking a median line through the center of the nose and another through the center of the pupils we will find in practically all individuals a marked variation in the two sides of the face. Invariably one eyebrow will be found to be higher than its fellow, and very commonly there is found a variation in the distance from the center of the nose to the pupillary centers. I mention the former variation, the eyebrows, from the fact that the patient so often will complain that the glasses are not straight, as he judges from the relative position of the top of the frame and the eyebrows. The latter variation, that of an irregularity in the monocular pupillary distance, rarely is of such degree as to call for any particular change in the frame, though occasionally it does. This is met by specific instructions to the lens maker in the matter of decentering.

Now a word as to decentering. This is done occasionally, and in such cases I take particular pains to explain it to the patient. This is done that in case of replacement of a broken lens he may call attention to the fact that the lenses are not entirely regular. I have had patients with decentered lenses who have had replacements with no regard for decentering, and who have experienced no little trouble as a result. A similar difficulty applies to lenses of a special type, such as Punktals. These lenses are scientifically correct, but in replacements lies the trouble. A patient with one Punktal and one ordinary lens will not be very comfortable.

In the matter of toric lenses vs. flat lenses, there is little room for argument. In the usual type of reading glasses I can see where a flat lens might be just about as comfortable as a toric, but the analogy ends there. With the increase in range of vision we get with torics I believe they should be used in most cases. There are certain exceptions, however, particularly in certain myopes. This correction was ordered for a patient, using a toric lens:

$$O. D. -5.00 = -2.25 \times 180$$

$$O. S. -3.50 = -2.75 \times 180$$

She could not and would not wear it. The same correction was given in a flat lens and all was well.

Occasionally an error is made in the shop and a toric lens is dispensed whose base curve is not the same as the fellow lens. This will cause no little discomfort to the patient, and while it is an error not commonly made it should be looked for in cases where we are most certain of our refraction and are put to it to discover the cause of the trouble.

In the matter of presbyopes we all have our little troubles, particularly when we order bifocals. Yet, in cases where we prescribe simple spheres for reading we sometimes have our patients come back complaining they have no little trouble with their glasses. On questioning we find that they expect to be able to walk about the house with their reading glasses on. I am very careful to demonstrate that these glasses are for reading only and that if they want a glass for constant use they will have to use a bifocal.

With few exceptions I have adopted the solid bifocals as a standard. We get away from the old complaint of lines and blurs between the segments and I find the patient is much more comfortable than with the old cement jobs. I am getting bolder every day in my advocacy of solid bifocals, recently prescribing them in a case of very high hyperopia—O. U. plus 8.00 sph. Rarely do I find a patient who cannot wear them.

My experience, however, with the solid bifocals of the inset type has not been very favorable.

Now, as to the kind of mounting. For some time I have practically tabooed the eye glass. I believe I use these in less than 1 per cent of my cases. The great majority of our refractions call for some astigmatic correction. Astigmatism calls for a perfectly fitted, rigid correction. This cannot be given in the form of eye glasses. Since I have adopted this rigid rule against the use of eye glasses my troubles have diminished very perceptibly.

Then comes the great question of rim or rimless mountings. I am lined up 100 per cent on the side of frames on practically all glasses. The following story is taken from a conversation with one of the foremost wholesale opticians in the Chicago district: "Some years ago, when the shell rims came into vogue, the wholesale optical trade patted itself on the back and said, 'At last we have done something worth-while; we have brought out a frame that will take the country by storm. Every wearer of glasses will want a shell rim. Those who do not now wear glasses will want to wear them, they will all want the rubber-tired goggles.'" He was right. But in two years this man awoke to the fact that in the adoption of the shell rims the wholesale trade had cut off about one-third of its business. Practically that amount of lens grinding was for replacement of broken lenses. With the advent of shell rims broken lenses ceased to be a common thing. Some two years ago this same man, at a national meeting of his craft, went about among the delegates

asking if they were putting out shell rims. Getting an affirmative answer he proceeded to pin a little emblem on them and announced that they were duly declared members of the Order of Goofs; that they were, through the advocacy of shell rims, cutting into their own business. As a result of this little affair plans were then and there made to start propaganda against shell rims. It did start but never got anywhere.

My experience is that shell rims have removed one of the greatest nuisances in our profession. I am sure you have all had the same experience as I, that of having patient after patient come in complaining that a screw must have been too tight or that a lens just broke without having been touched. Many, many times have I made replacements, without charge, when I knew better but wanted to avoid argument and dissatisfaction. I maintain that with due consideration of the facial features of the patient we can get as good cosmetic effects with shell rims as with rimless mountings, with as much pleasure to the patient and a great deal more personal peace and comfort of mind.

Another important matter is the follow-up system in our refractive cases, particularly in those cases with compound corrections. There can be no argument that our astigmatic corrections, whether simple or compound, must have lenses in proper alignment. It is my custom to stress this point with my patients, telling them to come in whenever they notice one or both lenses are out of line. It is a matter of but a moment to true up a frame, and it is a bit of service that increases your patient's regard for you. Just here I might mention, I never prescribe an astigmatic correction in the form of a round lens. In wiping the lens the axis is sometimes diverted, thus causing trouble for the patient.

DISCUSSION

DR. J. R. NEWCOMB (Indianapolis): I wish to agree with Dr. Shanklin in regard to the advisability of always checking up on your prescriptions, not only as to the proper strength of the lens but the proper application of that lens in front of the eye. That includes pupillary distance, the tilt in front of the eye, and so forth.

One of the greatest difficulties encountered by the oculist is with bifocals. There is no question but that the correction of presbyopia is a most difficult thing, but the bifocal lens answers that question most satisfactorily. Frequently I find the patient unable to wear lenses of the proper strength because of the fact that the segment in a strong glass is not properly centered. Another thing of importance is in your off-axis cylinders. It is necessary to change the strength of the whole reading segment to avoid a most peculiar and distressing symptom to which the patient will object.

Another thing that has disturbed every one of us is the attitude of the patient. You have to *sell*

the idea of bifocals to the patient. For instance, going down steps. I instruct a patient to put the glasses on and go up and down stairs or steps twelve times, and that problem is then solved for them. I think the flat lenses unquestionably are preferable in the stronger corrections.

The thing that Dr. Shanklin referred to is a matter not of cupidity, so far as ophthalmologists are concerned, but of protection. When the ophthalmologists in the communities get together and establish their own manufacturing plants, and sell lenses to the patients at what might be called a fair and decent price, then we have solved the question satisfactorily.

One other thing of importance. I have long been an advocate of the routine use of eserine following examinations under a cycloplegic. I use it on every case with the possible exception of quite young adults. If you use eserine in proper strength, in less than half an hour after your examination the patient is back at his work with accommodation restored. It makes for comfort, safety and happiness.

DR. GEORGE F. KEIPER (Lafayette): After a thorough knowledge of applied refraction we ought to know how to fit the frame needed to hold the lenses properly before the patient's eyes, and comfortably, too. It is your duty in sending out the prescription for lenses to send with it the exact frame measurements.

A set of fitting frames is an absolute necessity. It will determine three things. First, the nose piece; second, whether the crest of the nose piece should be inset or outset, or on a plane with the lenses; third, the length of the temples. And it will give a fair estimate as to the interpupillary distance of the center of the lenses. It is not wise to depend upon the fitting frame for that measurement; the millimeter rule should be used. To determine the angle at which the bridge or nose piece is to set, a crest and temple measure is necessary. To do this work well it is necessary to place the patient so that the light from two windows shall fall equally upon his face. The patient should be standing.

It is best to have the patient's glasses pass through your own hands to be sure that the prescription is filled right, and if possible to put the glasses yourself upon the patient's face to secure a proper fit. The configuration of the patient's face is to be considered. It will be found that in the majority of heads one eye sets higher than its fellow; the ear of that side also sets higher. Therefore in the great majority of patients the frames must be adjusted to the face after receipt, and it may be necessary to eschew the rigid celluloid frames so popular nowadays and urge a frame capable of adjustment.

Toric or meniscus convex lenses are to be preferred to the ordinary periscopic lenses. The latter have only 24 degrees of a useful field,

while the former have 56 degrees of useful field, or over one hundred per cent more.

Attention has been directed to the occurrence of glaucoma after homatropine cycloplegia. Therefore when our work is done it is safe procedure invariably to instill into the eyes of persons over forty years of age some eserine to promptly contract the dilated pupils.

DR. J. P. WORRELL (Terre Haute): In the matter of fitting frames we are confronted with one difficulty today that the lenses which are so fashionable are very large, so that in a considerable proportion of our cases it is impossible to properly center the glasses without decentering the lenses, a detail to which, from my observation, little attention has been paid. Particularly do I find this true of corrections made by opticians.

Among the post-refractive questions arising is the degree of error which may become manifest after the glasses shall have been worn for two weeks or so. Even after the use of a cycloplegia and the prescription of what was supposed to be a near full correction, there will become apparent a degree of manifest error that calls for further attention. This is true even of persons up to sixty, where with a diminished range of accommodation a small degree of manifest is the outward expression of more or less serious discomfort.

DR. C. NORMAN HOWARD (Warsaw): In trying to find a way out of our troubles we all have come across odds and ends of things that are of practical help. One of my whims is in regard to bifocals. Sometimes tilting the lenses ten degrees eliminates trouble. Another point is this: I think that we ought to visualize what a patient is going to do with his glasses. Let us not be afraid to suggest two or even three pairs of glasses. Furthermore, in case of breakage a duplicate pair is invaluable. If a person's shoes get wet he doesn't stay in bed all day. He puts on another pair. By the same line of reasoning he should have two pairs of glasses. Explain the logic of this to your patients.

One more little point: I have a Snellen card out in the back yard. When I get through with the regular routine of things I often take the patient to the window and say, "What can you see on that card?" It is as if he were looking across the street. It is a practical thing.

DR. ALBERT E. BULSON, JR. (Fort Wayne): This paper is a timely one because it calls attention to some things that are overlooked by many ophthalmologists. Oftentimes it is attention to the little things which gives the greatest success. A properly adjusted spectacle frame with the right pupillary distance and lenses in proper position is just as necessary as an accurate correction of the refractive error. Then, too, we gain the approval of the patient if we pay some attention to the cosmetic effect, as the essayist already has said.

Toric lenses are better looking and increase the field of vision, but occasionally a patient cannot wear them on account of the increased reflection or for some other unaccountable reason. A change to flat lenses alone has been sufficient to give some of my patients comfort when toric lenses were uncomfortable. Fortunately, such cases are rare.

They say that you can get used to anything except hanging, but I have not arrived at the point where I can endorse the use of shell spectacle frames for everyone. They are positively hideous on some people and especially when a very large lens is selected and insisted upon by a patient with a little narrow, wizened face. The skeleton frames with lenses of appropriate size and shape are the neatest that can be supplied, even though more liable to breakage but why cut them out because of breakage? Women do not refuse to wear white dresses, nor men refuse to wear white shirts because they soil more easily than such articles of wearing apparel made in black, and laundry bills are more expensive than lenses.

The decision as to the amount of the correction to be prescribed depends upon many factors, among which may be mentioned the amount and character of the error, the health, temperament and occupation of the patient. Generally speaking, all patients are more comfortable with a slight under correction, and the reduction should be greatest with those patients who will wear the glasses all the time and do but a moderate amount of close work. Even bookkeepers, draughtsmen and others using the eyes incessantly at the close point who require nearly the full correction for such work will find a greatly reduced spherical correction better for general wear if the error is rather large. Of especial importance is the necessity of knowing the static refraction determined by retinoscopy under a cycloplegic, and correcting the full amount of the astigmatism.

A point worthy of emphasis is the advisability of checking up all glasses that have been furnished on prescription, and in particular the glasses that are made by some opticians who perhaps secure the prescription because he is a friend of the patient. It is surprising how frequently errors in grinding and more particularly in the frame measurements will be found.

Many ophthalmologists dislike refraction work because it requires so much time and painstaking attention to details, but there is nothing which gives greater satisfaction to the patients and it is our duty to leave nothing undone that will add to their satisfaction as well as our success.

DR. E. M. SHANKLIN (closing): In regard to Dr. Keiper's suggestion concerning post-refractive use of eserine, I may say that I also use eserine as a routine. I use 1/300 to 1/500 of eserine or, better still, an eserine ointment. Give two or three instillations in the course of thirty or forty min-

utes and within an hour you have your patient's accommodation back to normal and you save them twenty-four to thirty-six hours, and they are very grateful.

The average optician, whether he be the retail dispensing optician or of the wholesale variety, has a very definite idea about the set of the lens in front of the eye. It is what they call pantoscopic. I never could reason why it was ever invented. I change every one of them. When these cases come back, I take the temples and tilt them up in order to get the angle that I think is proper for the patient.

Oculists should do their follow-up work with their own patients. In my cases the younger the patient the shorter interval between refractions. I urge my patients to come back every once in awhile, from three months to six months or one year. The presbyope I want to see every two years.

I do not maintain that the toric lens is the proper thing for all people. It is an absolute impossibility to use it in some cases. I do feel that, as a general rule, the toric lens is a more comfortable lens for the patient than the flat. The amount of correction is a matter of personal experience.

I dare say that the most of you men, when you started out doing refractive work, used somebody's rule. I did. But now I am using Shanklin's rule. And Shanklin's rule is common sense, plus personal experience in determining how much correction the individual patient will stand.

GOITRE AT INDIANA UNIVERSITY

FERNANDE H. LUCK, M.D.
BLOOMINGTON

The present study was begun in September, 1923, and has been continued up to the present date, May 15, 1924, and is as follows:

I have found by actual observation, 460 cases of goitre, or 32.8 per cent of the girls in school this year. These goitres are of all sizes, ranging from very small ones to others that are quite large. All of the freshmen girls had a special physical examination this fall and of these, 41 per cent had goitres, and as all of the goitrous cases among upper-classmen probably not have been seen this year, this perhaps shows a more correct estimate of the cases in the university than the above figures.

In general the treatment consisted of a palatable iodine preparation containing 6 Mgm. (1/10 gr.) iodine in organic combination with fatty acids. This preparation was in tablet form to be taken three times a day, that is 18 Mgm. daily, for two weeks; then the patient reported two weeks later, or rather after a two weeks' rest, for observation and the treatment was repeated. In some cases the tablets were supplemented by the use of table salt containing .02% sodium

iodide. This salt was used in the preparation of food as any other salt would be used.

All were given an opportunity to receive treatment, and 237 availed themselves of it. So far 89 have failed to report, so I can give results based on only 148 cases.

The results are as follows:

Improved	89 cases or 61.5%
Stationary	37 cases or 25.0%
Increased	22 cases or 14.5%

Some of the cases had iodine treatment just once, others twice, and still others three times. Two cases were using iodized salt in their food but no tablets; others were combining the tablets with the salt.

The improved cases were reduced as in the following table:

	*1.-1	1.-1-S.	1.-2	1.-2-S.	1.-3	1.-3-S.	S.
½ to ¾ cm.	14	4	3	2	1	0	1
1 to 1¼ cm.	17	8	8	3	1	0	1
1½ to 1¾ cm.	9	2	3	1	1	0	0
2 to 2¾ cm.	1	2	2	1	0	0	0
2¾ cm.	0	0	1	1	0	0	0
3 cm.	0	0	1	0	0	0	0
3½ cm.	0	0	0	0	1	0	0
Totals	41	16	18	8	5	1	2

*1.—Iodine tablets.

1—Once.

2—Twice.

S.—Iodized salt.

Seven of these cases increased in size at first and three of them remained stationary for quite awhile, but decreased upon the second administration of iodine.

Of the stationary cases:

31 were given iodine treatment once,

6 were given iodine treatment twice.

Of the cases that increased:

15 were given iodine treatment once,

7 were given iodine treatment twice.

The increase in these cases in which the treatment was repeated was very slight.

Changes in size of ¼ cm. were not considered in any way as they might be due to some slight error in measurement.

I found that in practically all the cases the goitres increased in size during the administration of iodine, and decreased a few days afterward, so that I had the patients wait for two weeks after taking the medicine before reporting. In other cases, the goitre remained stationary with one treatment, but decreased after a second treatment. When the second treatment failed I felt that it should be dropped.

Following is a table showing which types of goitre responded to the iodine treatment and which ones did not:

Total	*Tr.	Ex.	Ta.	Improved	Stationary	Increased
36 cases	—	—	—	28 or 77.7%	6 or 16.6%	2 or 5.7%
4	+	+	+	3 or 75.0%	0	1 or 25.0%
20	—	—	—	14 or 70.0%	3 or 15.0%	3 or 15.0%
42	+	+	—	25 or 59.5%	14 or 33.3%	3 or 7.2%
10	+	+	+	5 or 50.0%	2 or 20.0%	3 or 30.0%
29	+	+	—	13 or 44.8%	8 or 27.6%	8 or 27.6%
3	+	+	—	1 or 33.3%	1 or 33.3%	1 or 33.3%
4	—	—	+	0	3 or 75.0%	1 or 25.0%

*Tr.—Tremor; Ex.—Exophthalmos; Ta.—Tachycardia.

In endeavoring to find out which ones of these

three symptoms responded the least to iodine, I used the following table:

	Improved	Stationary	Increased
Tr.	50.5%	29.0%	20.5%
Ex.	54.7%	21.8%	23.5%
Ta.	20.0%	25.0%	30.0%

Furthermore, as some of these cases showed varying degrees of tremor and exophthalmos, I recorded the slight degrees +, and the more severe types ++. The treatment of the more severe ones responded thus:

	Improved	Stationary	Increased
Tr. ++	33 or 42.4%	39.3%	18.3%
Ex. ++	14 or 64.3%	14.3%	21.4%

From these last two tables I would conclude that the cases with tachycardia were the hardest of all to reach, and that exophthalmos even of a severe type was not so great a barrier to improvement. I might add that no case was considered as having tachycardia which did not have a pulse of 90 or above, during two different observations.

NOTE: Since making this report two more cases have shown improvement, one who had shown 2¾ cm. reduction after the second administration of iodine, showed a 4¼ cm. reduction after the third administration. The other case which was marked stationary has since shown a reduction of ½ cm. after one course of treatment.

SORE THROAT, A CASE OF MALINGERING

R. D. BAYLEY, M.D.

LAFAYETTE

Miss O, age 17, was referred for x-ray treatment in January for recurrent false membrane of the mouth.

The membrane first appeared two years previously, six months following a tonsillectomy, and was the size of a split pea on the left tonsillar pillar.

There were no subjective symptoms at the time and a culture was negative for diphtheria bacilli. The membrane came away in a few days but recurred three weeks later and was slightly larger than before.

The membrane continued to come and go more frequently for three months. A Wassermann was taken at that time and was reported four plus. Blood count and urinalysis were normal at the time. Repeated throat cultures showed only ordinary oral flora.

Another Wassermann was three plus and arsphenamine was recommended, but treatment was refused by the girl's parents.

An autogenous vaccine was used without benefit. Meanwhile the membrane continued to appear and disappear more frequently and extensively.

She was then referred to an Indianapolis physician who made a diagnosis of mold infection *Mucor-nigri* and advised local treatments of trichloroacetic acid and 5% phenol. The membrane failed to appear for thirty days and recurred as before. Several kinds of local applications have

since been used and three doses of .04 Sulpharsphenamine.

For the last month or two the membrane has occurred twice a week on Tuesdays and Saturdays, and has been removed by her physician a day later. The largest period over which she has been free from the membrane is seven weeks which was in the fall of last year during an illness with typhoid fever and two weeks following.

She has had no other illnesses, but had a cystic growth of some kind removed from the scalp over the occiput at the age of seven years. This has recurred.

Her family history is of no importance.

Regional history revealed nothing except nocturea twice a night and burning sensation in the mouth during the attacks which prevents eating and drinking.

Examination showed a small mass over the lower occiput which felt definitely cystic and moveable with the scalp. There was a white membrane over the buccal mucous membrane, limited to the area between the teeth with mouth

open and extending over the soft and hard palate.

A sodium hydrate preparation failed to show mycelian threads but the membrane consisted of a single layer of epithelial cells containing no characteristic organism.

A bread culture from the membrane showed *Mucor-nigri* and several other pigments forming non-pathological organisms.

Repeated observation, including once when the membrane came while she was in the office, revealed small black spots on the fingers and once at the angles of the mouth.

An especially abundant membrane was removed and chemical analysis was made by F. G. Mellon, of Purdue University, and showed a heavy precipitate which gave chemical reactions for silver.

The patient denied using anything to produce the lesion, but explained that the marks on her fingers were from a stick she used which stained her fingers if she did not wash them immediately.

She was greatly displeased when told the sore mouth was due to silver nitrate.

AN IMPROVED (?) ETHER

In 1921, Dr. H. E. G. Boyle of London read a paper before the Section on Miscellaneous Topics at the annual session of the American Medical Association. His paper dealt in part with a so-called improved ether—"Ethanosal." The claims made for the product were that it was a modified ether superior to ordinary ether. These were based on the theory that pure ether is less desirable as an anesthetic than ether which contains certain "impurities." In due time Dr. Boyle's paper was submitted for publication. It was returned on the ground that The Journal does not publish articles on new remedies until such products have been reported on favorably by the Council on Pharmacy and Chemistry. The Journal was criticized by a physician who was interested in an anesthesia journal, for its refusal to publish the paper. "Ethanosal" was developed in England along the same lines as its Canadian prototype, "Cotton Process Ether." The usual chemical data regarding "Ethanosal" were given at the time, but not sufficient to remove it from the semisecret class of proprietaries. So much for ancient history. The work of Dale, Hadfield and King, in England, and other investigators makes plain the fallacy of the claims of superiority made for "Ethanosal." Incidentally, the whole question of "cotton-process ether" and "Ethanosal" demonstrates again the advantages to our profession of a competent judicial body—the Council on Pharmacy and Chemistry—to investigate new additions to our materia medica. At the present time, "Ethanosal" is being advertised to the medical profession of

Great Britain as an ether superior to that which has been standardized and is official in the pharmacopeias of both countries.—*Jour. A. M. A.*, Sept. 22, 1923.

A SIDE LIGHT FROM THE SOURCE ON OSTEOPATHY

In 1874, Andrew T. Still founded osteopathy. He tells about it in his autobiography. He tried to get started in Kansas, but the powers at Baldwin University refused to permit him to expound his doctrines at that institution. In May, 1875, he was in Kirksville, Mo. It appears that he rather anticipated having a hard time, and he tells that his wife promised to stand by him and help him fight his battle. At this point in his story he presents a little incident which we have thought worth quoting:

I did not tell her (his wife) that when I came to Missouri I found a letter addressed to my brother Edward, from brother Rev. James M. Still, of Eudora, Kans., stating that I was crazy, had lost my mind and supply of truth-loving manhood. I read it and thought, as the eagle stirreth up her nest, so stir away, Jim, till your head lets down some of the milk of reason into some of the starved lobes of your brain. I believed Jim's brain would ripen in time, so I let him pray, until at the end of eighteen years he said:

"Hallelujah, Drew, you are right; *there is money in it*, and I want to study 'Osteopathy.'"

We acknowledge that we are responsible for the italics.—*Jour. A. M. A.*, Sept. 29, 1923.

THE MASTER MIND

"So, your husband has given up smoking. It must have taken lots of will power."

"It sure did, but I've got it."—*The Mystic Worker*.

THE JOURNAL
of the

Indiana State Medical Association

Devoted to the Interests of the Medical Profession of Indiana

ALBERT E. BULSON, JR., B.S., M.D., F.A.C.S.

Editor and Manager

Office of Publication, 406 W. Berry St., Fort Wayne, Ind.

JUNE, 1924

EDITORIALS

SAFETY LEGISLATION

At the coming session of the Indiana legislature the medical profession should use its influence to have laws passed governing the labeling and sale of lye or other caustic alkalis used for household purposes, and providing standards for drivers of motor vehicles.

A common accident, occurring more often to children but sometimes to adults, is caused by burns in handling or even swallowing any of the commercial lye preparations, and this accident is due primarily to failure on the part of manufacturers to so label or brand the lye that those who use it will know that it is poison and should be treated as such. Nearly every physician of considerable experience has had cases of lye burns, including strictures of the esophagus caused by swallowing lye, which came about through the careless handling of the ordinary household lye which seldom bears any label indicating its dangerous properties. The swallowing is practically always an accident, the lye, in powder or solution, being left in reach of the child or put on the kitchen shelf with other containers and mistaken for one of them. Sometimes it is a residue adhering to a cup which has been used to measure lye. This apparent carelessness is due to a lack of knowledge of the highly poisonous nature of all lye preparations. Since lye may be purchased anywhere, and since the labels on the containers have neither a poison nor warning notice, or, if present, is usually inconspicuous, it is readily seen that education as to the poisonous nature of lye is only by bitter experience. Legislation necessary to prevent these occurrences should be enacted. All lye preparations should be labeled as conspicuously as any poison for the purpose of warning the public of the highly poisonous nature of these substances which, if so labeled, would in the majority of instances be placed in a safe place beyond the reach of innocent children. Efforts at remedial legislation will be met by opposition from manufacturers, but if the medical profession points out the dangers and the pathetic results from lye burns, no doubt legislators will appreciate the need for the legislation proposed.

Another matter of importance is the question of standards for drivers of motor vehicles, to

which attention is being directed this year by a report and recommendations to be presented before the Section on Ophthalmology of the A. M. A. Concerning this matter the committee calls attention to the appalling increase in the number of casualties from motor vehicles throughout the United States which makes it imperative that everything possible be done to lessen the evil. As physicians, cognizant of the harm that may arise from the operation of motor vehicles by those physically unfit to operate such vehicles, an occupation demanding keenness of sight, acuteness of hearing, normal cerebration and full power in arms and legs, it behooves that we, as a profession, should direct public attention to the subject, and that we should insist on the passage of laws in each state with the view of restricting the granting of licenses to operate motor vehicles to such persons as may submit themselves to physical tests at the hands of properly qualified medical and surgical practitioners, and have demonstrated their physical fitness. As the opinions of practitioners regarding such physical ability may vary, it is necessary that a standard be adopted of a minimum amount of efficiency below which it would be unsafe, in the majority of instances, for applicants to operate such vehicles. The committee, after giving careful consideration to the subject, submits as standards the following:

(a) The applicant has no disqualifying defects of either legs or arms (anatomic or functional loss of hand, arm, foot or leg.)

(b) The applicant has vision of at least 20/50 in one eye and vision of at least 20/100 in the other eye, with or without glasses.

(c) Double vision shall disqualify.

(d) All candidates must be able to hear a low spoken voice at five feet.

(e) The mentality of the applicant must be adequate and the heart's action reasonably healthy.

The committee has taken into consideration the argument which may be put forth by some that the visual standards are insufficient; that not only is the visual acuity demanded too low, but that no mention is made of color blindness, which should be disqualifying. In answer the committee states that it is not the degree of visual acuity that might be desirable for each candidate to possess that must be determined, but the minimum amount of sight with which it is possible to drive motor vehicles with safety. The degree of vision incorporated in the standards is much the same as the army demands of its soldiers; a higher degree or standard would debar many who are now operating cars with safety. To insure the universal adoption of any kind of physical test it would be a mistake to demand too much of either applicant or examiner. For that reason simplicity and avoidance of unessentials must be insisted upon.

The medical profession of Indiana ought to use its influence to secure legislation bearing upon these proposed measures to safeguard persons against injury and to prolong human life.

FRAUDULENT INVESTMENTS FOR THE DOCTOR

Just why professional men should be more easily imposed upon than others is not easily explained except on the theory that in following their vocation they have less to do with barter and trade and consequently are not so keen in efforts to detect injustice and fraud. At all events it is an established fact that most of the promoters of enterprises, whether good or bad, and fakers of every description, count professional men as their easiest victims, with doctors heading the list. One would think that a doctor who burns his fingers would steer clear of the fire forever afterward, and yet he doesn't do it. He not only buys stock in various concerns that on their faces are of doubtful value or have the earmarks of being a fake but he seems to be on the lookout for doubtful get-rich-quick schemes in which to lose his money. He thinks that the astute banker or the successful business man who places health in the hands of a medical quack uses poor judgment, but he fails to take into consideration the absurdity of his own conduct when he places his finances in the hands of a business quack.

In years past we have called attention to a number of swindles that have caught numerous doctors for various amounts despite warnings that we and others have sounded, and we have preached the doctrine of "investigate before you invest," but doctors seem to take an uncanny delight in patronizing the very swindlers who have been given bad reputations by those in a position to know what they are talking about. In the hope of interesting doctors of Indiana in sound investments we secured the advertising of an old and responsible banking concern having the highest reputation for integrity, but solicitations from this firm met with scant response from doctors in Indiana who have money to invest. The same is true in other states where doctors ignore possibilities of investing money safely and who turn to the swindling concerns to dump earnings with reckless abandon.

Right now in Indiana efforts are being put forth to get doctors to take out life insurance in a company of questionable reputation on the promise that appointment as a medical examiner will follow, and this scheme is outclassed by still another money-getting scheme in which a doctor is asked to buy stock in an insurance underwriters company on the promise of being appointed medical examiner or medical referee in

addition to sharing in the profits of the enterprise. It is reported that those who are working this latter game are the same ones that worked another swindling game that defrauded thousands of people in Indiana and among them several hundred doctors. Just why any doctor should be led astray by promises of appointment as a medical examiner or professional recognition of any kind is a mystery. It is a good thing to steer clear of the agent who tries to sell you something on the ground that you will receive some sort of an appointment, whether it offers compensation or not.

No money should be paid out to anyone without knowing where it is going, to what use it is to be put, and what tangible security is back of the investment. Promoters have a smooth and plausible way of presenting their propositions so that the lure is particularly attractive to dupes, but it is just as well to withhold the check or the signature on the dotted line until a good banker or a responsible business bureau has endorsed the project. The promised large returns from an investment seldom are realized, and in reality the safe investment is not the one that promises big returns, but under any consideration money should not be put into any enterprise that cannot show tangible security for the investment.

Few doctors are noted for wise investments. The vast majority of the members of the medical profession are not interested in government bonds, or in what bankers call "gilt edge" stocks and securities, for such investments though safe do not offer enough of the get-rich-quick element to attract doctors. Even an enterprise the success of which depends upon doctors themselves does not interest them, as is evidenced by the fact that a physicians' supply house in a certain city in Indiana that has made money, figuratively speaking hand over fist, and at present is seeking an increase of its capital in order to take care of a business that turns over a profit several times a year, is having much difficulty in disposing of its stock to physicians even though shrewd capitalists and other careful investors would take the entire issue if permitted to do so. It is common knowledge that many of the doctors who have been solicited to buy stock in the concern in question recently have invested heavily in two swindling games that bankers and business bureaus have denounced as unworthy of confidence.

Aside from the desire to urge the doctors of Indiana to investigate most thoroughly every proposition in which they are asked to put money, there is the further reason for this editorial comment in a warning to be guarded in deciding to invest in two or three enterprises that right at the present moment are being promoted here in Indiana and which have the earmarks of being unworthy of confidence. The fact that any company has been licensed to sell securities in the

State of Indiana does not necessarily mean that the project promoted is safe, and a doctor who is wise will take advice from a reputable and trustworthy banker before putting his money into any enterprise.

A DANGEROUS PRECEDENT

Health Commissioner Monaghan of the city of New York has issued an appeal that during the month of May every child in the city be given a thorough physical examination—a gigantic stock-taking of the health of this age group of the population. During this period various baby health stations and other organizations throughout the city *will place at the disposal of the public for this purpose the service of doctors and nurses.*

A widespread and continuous taking of stock of the health of all our population of all ages is a most desirable object. No group of citizens can be more desirous of preserving health than the medical profession, and the *Journal* is heartily behind any sound method that will help to attain this object in a manner designed to promote the best interests of the nation for all time. There are certain questions that must be raised, however, and answered; there are certain facts that must be considered before Commissioner Monaghan's plan can be given complete endorsement.

Does the future well being of the population depend on an efficient and well-trained medical profession? The answer must be in the affirmative. Can a profession progress continually forwards and upwards without the factor of a spirit of competition; a competition that brings with it the promise of the highest rewards for the greatest degree of success? Such progress without such competition is doubtful. The spirit of the profession can be preserved only by safeguarding the individual independence of its members, by answering to each one that his success need be measured only by his ability to secure it. This assurance can be given only by preserving for the physician his right to conduct his own practice, within legal and ethical limits, according to his own ability; and for the patient his right to seek medical advice according to his ability to select it and pay for it.

Commissioner Monaghan's plan to provide free physical examinations for all who may wish them is a step in the direction of state medicine, and state medicine will spell the doom of inspiration in medical work and of unlimited medical progress. Man has accomplished little without a definite incentive—the incentive to improve his intellectual, spiritual and physical condition. An attempt at the levelling of all men might be made, but if it were accomplished this level would be low—the valleys of mankind might be filled in, but they would be done so at the expense of the peaks.

Thomas Jefferson *believed* that all men were

created free and equal; he made the mistake of so saying, and multitudes have believed him ever since. Men never were and never will be created equal. It is possible to create them legally free—they can never be created free from the handicap which nature imposes upon them—but, paradoxically enough, in the land of the free created in part by Jefferson there is perhaps as little freedom as exists in any civilized country, and what there is is being curtailed as rapidly as possible by representative law-making bodies. State medicine and free medicine are fundamentally opposed to freedom in its broadest sense; the freedom of achievement commensurate only to ability. In a land already burdened by the limitations set by a bureaucratic government, where one out of every forty has already been given the task of policing the other thirty-nine, let us at least be spared state medicine!

The idea of health examinations put forth by Commissioner Monaghan is a good one; we have long advocated it; but let it come about by education of the public to an appreciation of its benefits, so that they may ask it of the medical advisers whom they themselves select, and by education of the medical profession so that it will recommend it to the public whose confidence it enjoys.—*The Boston Medical and Surgical Journal*, May 15, 1924.

PHYSICAL EXAMINATION OF EMPLOYEES

Compensation and indemnity insurance is furnished by nearly all industrial concerns and in many states is compulsory by law. However, it is not an unmixed blessing, for it often is wrongly applied or abused and still more often is honestly misinterpreted through lack of knowledge as to the physical condition of employees. Eventually both employers and employees are going to recognize the advantages of periodic physical examination as an economic feature in the lives of employees, for ill-health cuts down production. At present a feature that is lost sight of by some employers of labor are the compensation claims which are based on troubles originating prior to employment. A physical examination by a competent medical man prior to employment would in the majority of instances detect hernia, venereal disease, incipient tuberculosis, diabetes, heart lesions, and impaired eyesight. A record of these defects would prove valuable in adjusting claims, though of far more value in acquainting the employee of his condition and bring to bear upon him recommendations as to his care. Perhaps the majority of the employers of labor have periodic physical examinations themselves, and if it is a good thing for them it is a good thing for their employees. The one thing to be considered in the adoption of this plan is to secure competent medical men to make the examinations. It is not

work that should be done by the incompetent or illy-trained physician. Still another feature that is worthy of consideration is the question of compensation. Employers should not expect to secure the highest type of work in this field without paying well for it, for this work is comparable to the work of the efficient general manager or superintendent.

EDITORIAL NOTES

DEAR DOCTOR:

THE JOURNAL and the Cooperative Medical Advertising Bureau of Chicago maintain a Service Department to answer inquiries from you about pharmaceuticals, surgical instruments and other manufactured products, such as soaps, clothing, automobiles, etc., which you may need in your home, office, sanitarium or hospital.

We invite and urge you to use this Service.

It is absolutely FREE to you.

The Cooperative Bureau is equipped with catalogues and price lists of manufacturers, and can supply you information by return mail.

Perhaps you want a certain kind of instrument which is not advertised in THE JOURNAL, and do not know where to secure it; or do not know where to obtain some automobile supplies you need. This Service Bureau will give you the information.

Whenever possible, the goods will be advertised in our pages; but if they are not, we urge you to ask THE JOURNAL about them, or write direct to the Cooperative Medical Advertising Bureau, 535 N. Dearborn St., Chicago, Illinois.

We want THE JOURNAL to serve YOU.

WHEN we think of the outcome of the primaries we are reminded of the quotation, "Of all sad words," etc.

Nostrums and Quackery is a book published by the A. M. A. which should find its way onto the reception room tables of all the physicians in the country. Its name signifies its character.

A PROMINENT member of the Indiana State Medical Association, Dr. Carleton B. McCulloch, has been chosen by the Democratic party of Indiana as the candidate for governor. If elected we can depend upon a square deal from the governor's office on all questions pertaining to any phase of medical practice.

SOMETHING is expected this year from our Association committees. There is abundant opportunity and need for constructive work, and at the forthcoming session of the Association some well-considered suggestions should be offered for adoption by the Association in accomplishing something for the common good.

OUT of a membership of over twenty-eight hundred in our State Association less than half that number are identified with the A. M. A. by fellowship. This is altogether too limited a representation in the national organization. *The Journal of the American Medical Association* alone is worth the price of fellowship.

As we predicted, the Abrams theories and practice are being thrown into discard and little is heard of them any more. In a measure this is

due to the expose' published by the A. M. A. and distributed in the form of reprints to those applying for them, though in the main the death of the Abrams theories is due to the lack of merit.

THIS is the time of year when some of us have visions of a good rod and reel, a slug or two of rye for snakebites, an agreeable companion, and several days upon lakes or streams teeming with hungry bass. Well, let us hope that many a doctor will have an outing and that it will be spent in the enjoyment of a recreation that suits his taste.

THE value of the work of the Council on Pharmacy and Chemistry of the A. M. A. is attested by the fact that the Council is more respected today by the large manufacturing concerns than ever before. Concerns that ignored or openly opposed the Council seven or eight years ago are today consulting it before putting out a preparation.

NOT a few doctors expect that the soft pedal will be used when discussing the faults of the medical profession, but that would not help correct troubles that could be corrected when the searchlight is thrown upon them. Constructive criticism should be welcomed and we are very foolish if we consider ourselves or our practices and theories above criticism.

FOR the treatment of septicemia due to staphylococci and other bacteria nothing is equal to the intravenous injection of an aqueous solution of mercurochrome according to Dr. Hugh Young of the Brady Urological Institute and others connected with Johns-Hopkins Hospital. They still stick to this statement in spite of some adverse criticism, and their opinion is worth considering.

THE *Bulletin of the American Medical Association* is sent to all fellows of the A. M. A. That means that about half of the members of our State Association receive the *Bulletin*. A great deal of very interesting and instructive information is published in the *Bulletin* and we call attention to the matter particularly in view of the frequent discussions in our county medical societies covering topics of general interest to the profession.

FOR the benefit of the members of the Indiana State Medical Association who may be anxious about the program for the session to be held in Indianapolis in September we desire to say that arrangements are being perfected for one of the most interesting and instructive sessions ever held by the Association. Clinicians of national reputation will take part in the program and the subjects to be discussed will be of general interest and of practical importance.

THE Democratic party of Indiana in a platform recently adopted takes a swat at the State Board of Health in the following: "We favor such legislation as will limit the power of the State Board of Health in its arbitrary condemnation of school houses and other public buildings, as well as its arbitrary acts generally." The latter part of this paragraph is a stinging rebuke and perhaps is deserving of some explanation by those drafting the platform.

THAW, the notorious criminal, has been released, having been adjudged sane and not only entirely capable of managing his affairs but safe to be permitted to run at large. In the minds of probably a majority of lay people as well as medical men Thaw is just as crazy now as he was when he shot Stanford White. In fact, while he was incarcerated in the hospital for the criminally insane in New York he was guilty of acts which unquestionably pointed to the fact that he is mentally deranged.

AN attempt is being made to secure a federal law to regulate the labelling and sale of household packages of lye and other caustic substances. However, without waiting for a federal law, we propose to attempt to secure some such legislation here in the State of Indiana, and the incoming legislature will be asked to pass a bill that will provide a heavy penalty for failure to apply suitable labels or to sell lye or other caustic substances that are not labeled "poison" in letters large enough to be read by anyone.

THE Franks murder case in Chicago affords another opportunity for putting into effect the much abused plan of judging the murderers unsound in mind, incarcerating them in a hospital for the criminally insane, and in a few years liberating them. This seems to be the usual course if the criminals have money. We cannot get away from the feeling that murderers, sane or insane, should pay the penalty with their lives, for we do not believe they ever can be trusted and it is altogether too much of a risk to turn them loose.

HENNESSY's Brandy is advertised on a full page in the *Medical Journal of Australia*. Along with the advertising is a picture of a dancing girl in the usual scanty attire of dancing girls, and a fine representation of a Hennessy brandy bottle. We scanned the advertising carefully to find evidence of music, in order that "wine, women and song" could be found to be represented. American physicians are missing something that formerly was common in this country but now is confined to far off Australia and other benighted countries like Canada and the British Isles.

JUST now we hear a good deal about annual health examinations, but let us once and for all

put both feet down on the proposition to make such examinations *free* for all. Every individual should go to a good physician for a periodical examination, *and pay for the service if able to do so*. It is possible for the indigent or poor to get such service at a reduced fee, or no fee at all, but such concessions should not be granted those able to pay, for they are not justified and they tend to pauperize the community and increase the tendency to loss of self respect.

IN an address before a northern Indiana county medical society the dean of the Medicine Department of the Indiana University said recently, "If the rod had not been spared so liberally in childhood there would not be so many persons in the insane hospitals today." To which we say, "Amen." There are altogether too many freak ideas concerning the rearing of children that are being carried out today, with the result that we are rearing a lot of youngsters who know absolutely nothing about discipline or self-control, and the body politic will pay the penalty later on.

THE Indiana State Medical Association in carrying out the medical defense feature for its members has been called upon to pay some large fees for legal services, all of which reminds us that if doctors charged like lawyers do they would be hanged to the nearest lamp post, and yet it requires more education, training, and monetary expense to make a doctor than it does to make a lawyer, and we believe that the work done by the doctor from a dollar and cents standpoint is more valuable than that done by the lawyer. Such is consistency, but no one is more to blame for it than the doctor himself.

NUMEROUS investigators have pointed out the relationship of iodine deficiency in the production of goiter. It also has been pointed out that this iodine deficiency may be overcome easily by the administration of iodine without other changes in physiologic routine. In fact the plan of prophylaxis supplying small amounts of the essential iodine where it is not easily secured in natural ways has now been tested with distinct success in this country and in Europe, and it is not far fetched to see the disappearance of endemic goiter through the practical application of the discovery that has been made.

THE public health committee of the Academy of Medicine, New York City, has recommended that in all New York hospitals a Wassermann test should be made in every obstetrical case, preferably before admission to the hospital or during the period of prenatal care. This decision was brought about by the results of an inquiry which established the fact that from three to ten per cent of the women admitted to the obstetrical services

of the New York hospitals are syphilitic. This recommendation could well be followed by other hospitals over the country and would be distinctly in the interests of public health.

THE newspapers announce a new treatment for pneumonia that has been discovered by a young physician in the department of Hygiene in the Harvard Medical School. The researches have been financed by the Metropolitan Life Insurance Company. The treatment is what might be termed an anti-toxin derived from the serum of horses injected with pneumococci. It is said that by the use of this treatment the mortality from pneumonia will be reduced from twenty-five to thirty per cent. We shall await with interest some definite statement from reliable sources concerning this discovery and its usefulness.

WITH the advent of summer comes carnivals, mosquitoes, flies and other pests. All are subject to control. Boards of health will do well to offer suggestions concerning the matter. Carnivals should be prohibited except under certain restrictions, for it is a well-known fact that venereal diseases and crime accompany them and follow in their wake. Some municipalities are under the impression that carnivals bring business to the town, but such is not the case, as most of the money that is spent on carnival days is taken out of the town by the fakirs and other connected with the cheap shows which go to make up the carnival feature.

THE American Medical Association publishes an abstract of all articles appearing in *Hygeia*. This health news service is published monthly for the benefit of newspapers, magazines, trade journals and house organs. It is made up of news stories and extracts from the current issue of *Hygeia*. It is for the use of those promoting personal, industrial and community health. It will be sent to officers of county medical societies, and they are urged to use their influence in having these health articles published in their local papers. What are you doing, Mr. Secretary of a County Medical Society, in promoting community health by disseminating this information?

PERHAPS it is not generally known that the A. M. A. publishes a number of special journals, the best of their kind in the world. Among these are the following:

Archives of Internal Medicine,
American Journal of Diseases of Children,
Archives of Neurology and Psychiatry,
Archives of Dermatology and Syphilology,
Archives of Surgery.

Beginning with January, 1925, another special journal will be published by the A. M. A. and be known as the *Archives of Otolaryngology*. It

is hoped that a little later the Association will begin the publication of a special journal devoted to the eye.

HENRY FORD was a referee at the Speedway races in Indianapolis on Decoration Day. At the head of the opening parade of masked bands, soldiers and others, was carried a large United States flag. As the flag passed the stands filled with 140,000 people it looked as though all present bared their heads with the single exception of Henry Ford, who was a conspicuous figure at the starting line on the track and should have felt a little guilty when he noted the reverence paid the national emblem by his immediate associates and the vast throng that was present. Well, if we remember rightly Henry once publicly said that the flag meant nothing to him, and during the late war it certainly meant nothing to his son Edsal.

MANY of those in attendance at the Chicago session of the A. M. A. were astounded at the size and completeness of equipment of the A. M. A. building which is seven stories in height, occupies one-half block, is of steel and concrete construction, and is the most complete plant of its kind in the world. Here are housed all of the officers of the Association, and here all the activities are carried on, including the printing and binding of *The Journal of the A. M. A.*, a large number of special journals published by the A. M. A., together with numerous books, pamphlets and circulars required in carrying out the activities of the Association. It is a place well worth visiting and the medical profession can be proud of it.

It is reported that while a professor in Budapest was lecturing on anatomy the class of medical students suggested that inasmuch as the Jews always provide for the burial of their poor that forcible means should be taken to obtain Jewish subjects for dissection purposes. Whereupon a further suggestion was made that four Jewish members of the class might be offered as the subjects. The episode terminated by the flight of the four Jewish students after being rather roughly treated by the other students of the class who presumably thought that there was no time like the present for obtaining dissection material. All of which goes to show that notwithstanding our thousands of years of history, we are still far from being civilized.

NEARLY all of the state medical societies have been forced to increase their dues in order to keep up the efficiency of those organizations. In several states there has been a widening of the field of activity that has necessitated an increase in dues to meet the added expenditures. There is no just reason for complaint because medical

society dues have been increased, and in no instance, even with dues as high as fifteen to twenty-five dollars per year, can the payment of dues be considered a hardship even upon some of the younger men just starting medical practice. Probably the poorest of the doctors in any state spend two or three times more in frivolity than is spent for medical society assessments, and it ill becomes such men to complain about dues.

PRESIDENT COOLIDGE reluctantly signed the new tax bill, and in offering criticism of the bill made one comment that meets with the approval of right thinking people everywhere, and that is pertaining to the necessity and justice of having some tax legislation that is economic rather than political. Most of us are getting disgusted with politics, though we have to take some recognition of politics in efforts to secure any kind of beneficial legislation, even that which has to do with health problems. The only way we ever will break up the present tendency toward corruption and incompetency in public affairs will be by paying more attention to the primaries, and at election by severing all party ties and voting for men and not tickets.

IN the platform adopted by the Democratic State Convention we find the following pledge: "That each injured employee shall be given the right to choose his own surgeon and that medical and surgical attention be provided him during the life of the injury." This is in keeping with our comments on the subject in a recent number of *THE JOURNAL*, and perhaps if the pledge is fulfilled the members of the medical profession will receive more liberal consideration than they do at the present when insurance companies, not infrequently supported by the Industrial Board, hold physicians attending industrial cases to low compensation and limit the service to a thirty-day period after which the physician can whistle for any remuneration for services rendered the injured employee.

OUR laws are a little lax concerning the control of communicable diseases. Quarantine laws applying to smallpox, scarlet fever, diphtheria and some other communicable diseases are more or less effectively enforced in all communities, but there is a notable laxity in efforts to control the spread of venereal diseases. Every busy general practitioner knows that it is rather common to find those suffering from venereal diseases in a communicable form working in places where food is served, prepared, or sold, and there should be rigid legislation prohibiting such service. Penalties should be provided for failure on the part of physicians to report such cases, and penalties should be exacted of employees, who, knowing that they have venereal disease in a communicable

form, continue to work in a place where food is served, prepared or sold.

TONSILLECTOMIES, good, bad and indifferent, are being performed by doctors of every grade of competency. The operation seems to be the one pet procedure carrying with it an operative fee that is claimed by all. Mutilated throats, aspiration pneumonia, and various complications due to operation at the hands of every Tom, Dick and Harry in the medical profession does not alter conditions. Among the interesting complications, we read of the aspiration of tonsils which forms the basis of comment by Chevalier Jackson, the well-known bronchoscopist. As one operator says, "It is bad enough for patients to swallow the tonsils, as they sometimes do, but it is quite tragic for them to breathe the tonsils into the lungs." If more men operated with the patient on the side and the head tilted downward there would be less aspiration of blood, mucus and even tonsillar tissue.

QUACKERY is getting a boost at the present time through the advertising given the report that Mrs. William J. Bryan is being treated by a notorious faith cure quack who does not even profess to be a Christian Scientist. Perhaps Mrs. Bryan, like her illustrious husband who was defeated three times in his efforts to secure the presidency, eventually will be sadder but wiser. However, the incident only goes to show that quackery secures its victims from all classes of society and is no respecter of persons of reputed intelligence and possessing a soft berth in society. Perhaps we ought not to say anything, for some of the most astute financiers and business men are in the hands of medical quacks. On the other hand a large majority of the most talented and experienced men in the medical profession are in the hands of the financial quacks. Consistency and good judgment is a double-edged sword—it works both ways.

A NOT unjustifiable criticism is being made in certain medical journals concerning the ill effects of too much physical training of girl students in our schools and colleges. The athletic girl is not only quite popular but aspires for recognition as a follower of all of the sports that have been and are so popular with the male sex, and the charge is made that the whole thing is being overdone, to the physical detriment of the wives and mothers of the future. No good reason exists why the average girl should not engage in athletic sports that are not too strenuous, but when it comes to tests of strength and endurance, the matter becomes serious in its possible consequences. In advocating moderation it is not intended that girls should confine themselves to tiddly-winks as a game of recreation and chance, but, on the other

hand, it is not thought that they are equal to football, running races, high jumping, discus throwing, or even strenuous games of tennis.

THE Alleghany County Medical Society of Pennsylvania has sent in 1,670 paid subscriptions to *Hygeia*. Several county medical societies in Indiana have sent in a few paid subscriptions to *Hygeia*, but on the whole the doctors in Indiana, individually and collectively, have been a little slow about recognizing the distinct educational value of *Hygeia* in the hands of the laity, and it is time for an awakening. *Hygeia* is a wonderful publication for the lay reader and if it ever accomplishes a great good it must have the substantial backing of medical men everywhere and this means stimulating paid subscriptions. There is no excuse for the forty thousand dollar deficit that occurred last year. As stated in the report of the secretary, "If a majority of the members and fellows of the American Medical Association would become regular subscribers and induce their patients and friends to take the magazine, the success of the magazine would be assured."

IN Toledo, Ohio, a solicitor in clerical garb found two or three hundred people willing to contribute from ten to twenty-five dollars each to a fund which according to the solicitor's statement was to be used to build a church. Among those who contributed without investigation were over seventy-five doctors. The Better Business Bureau of Toledo heard about the work of the solicitor, investigated and found it to be a fake, and put a stop to it, but not until after a large amount had been contributed. Similar swindling schemes have been worked more than once here in Indiana, and it is not unlikely that the Toledo experience will be duplicated in some of the Indiana cities within the next few weeks. It is just as well to determine with certainty to what you subscribe when in a philanthropic or benevolent mood, and not be guided by the glib tongue of the solicitor or the array of prominent names that may form a part of the subscription list.

WHERE, oh, where, is our automobile lens law to which all of us were compelled to comply under threat of severe penalty? No one would ever know that there was any law in Indiana tending to prevent the dangers of glaring headlights, for it is entirely probable that not one automobile owner in a thousand pays any attention to dimming or focusing of automobile headlights and in consequence accidents continue to pile up. The flivver undoubtedly is the worst offender, and the luxurious limousine is not without its dangers though probably coming nearest to compliance with the law. Probably the lens manufacturers who reaped a harvest through the enactment of the law that now disgraces our statute books will come forward at the coming session of the legis-

lature with something new in the way of legislation by requiring the automobile owner to go down in his pocket again for something new in the way of lenses. One commentator has paraphrased the saying, "Death, death, where is thy sting?" to "Graft, graft, where is thy end?"

FOREIGN physicians are coming to this country in great numbers, being stimulated by the unfavorable conditions abroad and the better opportunities afforded in America. Heretofore we have been a little lax in enforcing our usual requirements upon foreigners for the practice of medicine in this country, notwithstanding that American physicians desiring to practice abroad have been treated with even greater exactions in the foreign countries than those imposed upon natives. The time has come for protection against the incompetent or undesirable physicians from abroad, no less than against the medical impostors at home, and the *Journal of the A. M. A.* offers good advice when it recommends that all foreign physicians should be subjected to an examination in English which should be just as rigid as that given to graduates of our own schools, and that the rules concerning credits and credentials should be equally as exacting. A few states, Indiana included, require applicants from abroad to be citizens of the United States and this is an entirely proper demand.

THE Bureau of Publicity is accomplishing some results by getting lay papers to publish articles concerning health problems. The work in a sense is duplicated by the State Board of Health, the Bureau of Health and Public Instruction of the A. M. A., and the propaganda of various associations that are interested in public health matters, but everything that attempts to educate the public in matters of personal hygiene and public health is worthy of consideration. One of the ways in which the individual members can further this work is by getting lay persons to subscribe for or at least to read *Hygeia*. Furthermore, medical societies, especially through the officers, can accomplish much good if they will undertake to secure the insertion of the abstracts of the more important articles that appear in *Hygeia* each month. These abstracts are prepared in the A. M. A. office and sent to newspapers, farm journals and lay magazines, as also to the officers of the county medical societies, but they are not likely to fall into the hands of lay readers unless published in local newspapers.

THE medical profession is giving more or less support to the plan proposed by various uplifters and public health officials to furnish free health examinations to all who may apply for such attention. The fact of the matter is that this free examination and free treatment business is being overworked and with pernicious results. It is

getting worse every year, and the time is coming when medical men will wake up to the fact that they have helped to promote and establish state medicine with all of the ills that will go with such a condition of affairs. Under the title, "A Dangerous Precedent," the *Boston Medical and Surgical Journal* discusses the question, and with the advent of so many forms of free examination here in Indiana, as proposed by those who conduct baby clinics, and free physical examinations in general as proposed in one locality in the state, it may be well for the medical men to stop and think concerning to what all this will lead. The editorial mentioned discusses the matter in an analytical manner and is reproduced in this number of THE JOURNAL.

JUST as we go to press with this number of THE JOURNAL we find the Indiana doctors returning from one of the largest and most successful annual sessions of the American Medical Association. Chicago is now destined to rival Atlantic City as a highly desirable place to hold conventions. At present it not only has ample hotel accommodations centrally located, but it has the great Municipal Pier upon which all of the activities of any organization may be held, and it is a great convenience to have all of the meetings and exhibits under one roof. Furthermore, it is a distinct advantage to hold the annual sessions of the A. M. A. in the city that is the real home of the Association. Heretofore we have felt that Atlantic City, on account of its wonderful accommodations, was the one and only place in which the A. M. A. should hold its annual sessions, for we have too many times experienced the inconvenience and the discomforts attendant upon sessions held in other places in the United States, but we now make exceptions by including Chicago as one of the places where the Association can be cared for in an entirely satisfactory manner.

EVERY time the pseudo-medical cults get into trouble with coroners, boards of health, or prosecuting attorneys, they lay it all to the American Medical Association which some of the quack doctors dubb "the medical trust." The fountain-head of chiropractic, B. J. Palmer, of Davenport, Iowa, is worried because so many chiropractors are being sued for malpractice or being sent to State's prison for manslaughter, and he charges the A. M. A. with being responsible for all of the troubles that have been heaped upon the spine manipulators. He therefore calls upon chiropractors to form an association, membership fee at ten dollars, dues and assessments extra, for the purpose of employing high class legal talent to defend members of the cult who are in trouble, and in his bid for co-operation in this movement he gives the impression that charges of manslaughter and malpractice against chiropractors are easily

proved in court. Commenting on this, the *Journal of the A. M. A.* says, "Evidently there begins to dawn on the consciousness of a gullible public a suspicion that impingement of spinal nerves by subluxated vertebrae is not really responsible for smallpox, syphilis, soft corns and barbers' itch. As this skepticism waxes, chiropractic will wane."

DR. WILLIAM NILES WISHARD, of Indianapolis, celebrates this year the fiftieth anniversary of his graduation as a doctor of medicine. His former students and friends desiring to express to him their appreciation of his notable services to the medical profession and in the cause of medical education, arranged a banquet in his honor, given on Friday evening, June 13, at the Claypool Hotel, Indianapolis. No more fitting or deserving recognition to any Indiana medical man was ever given by those who know and appreciate service, for as stated in the May number of THE JOURNAL, Dr. Wishard throughout his entire career has been identified in a very active way with the medical schools of the state, both as a teacher and executive, and also has been interested in the advancement of the science and practice of medicine in every other way. He has been a faithful and efficient worker in the Indiana State Medical Association, and for many years has been the guiding hand in shaping medical and public health legislation. The Indiana University recently has bestowed upon him the degree of doctor of laws, and the dinner in his honor by his associates and friends in the medical profession is certainly well deserved and a tribute to the unremitting and efficient service as rendered in everything pertaining to the art and practice of medicine.

IN reviewing a medical book we ran across a suggestion that is worthy of being repeated and is as follows: "Do not criticise the operative work of your predecessor. You do not know anything about the extraordinary conditions he may have met or the struggle he may have had to overcome the peculiar whims or objections or nervous reactions of the patient. Many unforeseen things may have happened, all of which were not preventable, but they had their influence in determining the final result." In connection with this wise commentary the author tells the story of a very busy nose and throat specialist who had the reputation of being rather blunt in his dealings with patients and not particularly tactful in commenting upon the work of others. On one of his busy days, a modest young woman came in for examination. She was placed in the examining chair, the specialist glanced in her throat and said:

"So you have had your tonsils operated on, have you?"

"Yes, doctor."

"Well, no one would know it. Of all the rotten

operations I have ever seen, this is about the worst!"

"Yes, doctor."

"Who did this operation?"

"Excuse me, but you did, doctor."

This story serves as a reminder that one should always go slowly in offering criticisms or commenting upon the work of others.

THE tendency toward socializing of medicine in some of the European countries has become so threatening that it has been necessary for the adoption of drastic measures on the part of medical men in order to preserve their vocation from ruination as a means of livelihood. In Austria there is a union of medical men in one body, without respect of creed, nationality or personal ambition, and this union has been of great service in the settlement of all problems that concern medical practice. Thus, when the government proposed a medical insurance scheme which would take more than a quarter of a million persons from the waiting rooms of private practitioners, and hand the work over to appointed physicians, the union intervened and brought about a change in policy which gave the patient the opportunity to select the physician he desired. Corporations also have been brought under the influence of the union which has decided the question of eligibility to treat employees and the compensation to be paid. In fact, the organization tries to improve the position of the practitioner, but through all of the trials and tribulations there has been a constant fight to secure fees for professional services that will guarantee even a living wage for those practicing medicine. That which trade unionism does for the laborer has been obtained for physicians by their union. Some day the medical men of America will have to adopt trades union methods in self-defense if the present tendency toward the adoption of state medicine is not thwarted.

THE Ford Hospital in Detroit covers almost an entire city block and has been reported in the lay papers as being "the last word" in hospital architecture, equipment, and management. However, the reputable and trustworthy physicians in Detroit have a different story to tell, and it is intimated that aside from the socialistic tendencies followed in the management of the hospital, the whole thing savors too much of a garage and repair shop where human machines are overhauled like automobiles. It is said that the physicians there punch the clock like any other Ford employee, and are merely cogs in a repair machine. The fine intimate personal touch between patient and physician is lost completely, and the uniform fees impose a burden upon the poor and render difficult the collection by private physicians or surgeons of adequate fees from the rich. It is

reported that only staff members are permitted to treat patients in the hospital, and factory methods in handling the patients are employed. It is entirely possible for Ford, with all his enormous wealth, to run a hospital in a humanitarian way and with due regard not only for the ethics of the profession but with economic fairness to the great body of physicians who must earn their living by rendering highly skilled services that deserve decent compensation from those who are able to pay. Ford seems to consider that medical skill can be purchased like he purchases bolts or tin radiator covers for his flivvers. It is unfortunate that he can find medical men who are willing to form a part of his system.

AT the risk of being pessimistic we desire to reiterate what we have said several times before, that this country is slowly but nevertheless surely drifting toward socialized medicine, and some of the leaders in the medical profession and especially those interested in public health work in a large measure are responsible for this trend of affairs. More and more our public health officials are assuming the role of the private practitioner of medicine, and more and more is there a tendency on the part of health boards and up-lifters to secure free health service of every kind for every one. The handwriting on the wall is perfectly plain and indicates the direction toward which we are drifting, and the ultimate results can be seen by an analysis of what has occurred in Europe and the pathetic economic position now occupied by a very large majority of our European confreres. As a matter of fact, some of the very best trained medical men in Europe have found that they cannot make a decent living by the practice of medicine, and they have gone into other vocations which are more lucrative. While the system in vogue there has reduced the position of a medical man to a level below that of the average mechanic, that is not the only unfortunate feature, for the people are suffering from inefficient service brought about by bureaucratic methods and the lack of incentive and progress which goes hand in hand with machine-like methods. Whither are we drifting in the solution of this medical problem, is worthy of more serious consideration than the average physician gives it.

AGAIN we desire to call attention to a need of the revision of the law and its interpretation concerning medical services rendered in industrial cases. At present much injustice is done medical men through the absurd and inconsistent ruling that no compensation can be secured for medical services rendered beyond the thirty-day period except through special arrangement with the Industrial Board. This leads to clashes with insurance companies and employers

of labor, for it is a well-known fact that in many cases the medical and surgical attention required in an industrial case cannot be completed within the thirty-day period. There is also the tendency on the part of some few medical men to be a little unfair in their handling of these cases by crowding more attention within the thirty-day period than the case really requires, well knowing that all attention given the case after the thirty-day period perhaps will be gratuitous. Thus, as one insurance agent tells us, in commenting upon our criticism of insurance companies for their tendency to browbeat the doctors, it occasionally happens that a doctor will attempt to collect fees for about three or four times as much actual attention as required in a given case according to standards employed in private practice.

The whole situation needs clarifying and adjustment so that those who suffer from industrial accidents will receive the best of care and as long as it may be needed according to usual standards, and the compensation for the same is made to correspond with the compensation customarily awarded in similar cases in private practice. There should be no such thing as a thirty-day limit for professional services, though we believe that there should be a schedule of fees that is in keeping with the services rendered, with perhaps some flexibility in consideration of the character of the services and the locality in which rendered. The whole proposition is worthy of the earnest efforts of our committee on Civic and Industrial Relations, and at the coming legislature some effort should be put forth to secure better legislation covering this phase of our professional work.

DEATHS

SAMUEL E. MUNSEY, M.D., of New Mt. Pleasant, died April 29th, at the age of 80 years.

T. W. MORGAN, M.D., Spartanburg, died May 1st. Dr. Morgan graduated from the Cleveland College of Physicians and Surgeons in 1893.

GEORGE DEWEY, M.D., of Crawfordsville, died May 13th, at the age of 79 years.

A. J. REEVES, M.D., of Terre Haute, aged 75 years, died April 28th. Dr. Reeves graduated from the Physio-Medical College of Indiana, Indianapolis, in 1875.

CHARLES W. GIBSON, M.D., of Batesville, died at a hospital in Cincinnati, May 14th, at the age of 53 years. He was a graduate of the Louisville Medical College, in 1892. Dr. Gibson was a member of the Ripley County Medical Society, the Indiana State Medical Association, and the American Medical Association.

T. J. O'NEILL, M.D., of Anderson, died May 13th, death being caused by pneumonia. Dr. O'Neill was a member of the Madison County Medical Society, the Indiana State Medical Association and the American Medical Association. He graduated from the Medical College of Indiana, Indianapolis, in 1904.

NEWS NOTES AND PERSONALS

Anything in the line of physicians' supplies or equipment may be obtained from advertisers in THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION. Patronize these advertisers, for it means a continuance of their advertising patronage, and the latter means a larger and better Journal for you.

THE American Proctologic Society will hold its meeting at the New York Academy of Medicine, New York City, June 23 to 25.

DR. ALBERT E. BULSON, JR., of Fort Wayne, delivered the address at the annual meeting and banquet of the Chicago Otolaryngological Society in May.

THE Porter County Medical Society held its regular monthly meeting at Valparaiso, May 2nd. Dr. G. R. Douglas, of Valparaiso, presented a paper, his subject being "Constipation."

THE Fourth District Medical Society held a meeting at North Vernon, May 14th. The program consisted of clinics in the forenoon and afternoon and a banquet and social session in the evening.

THE Muncie Academy of Medicine held a meeting May 9th, at which time Dr. Allen B. Kanavel, of Chicago, addressed the meeting on "The Differential Diagnosis of Major Neuralgias of the Face."

THE Association of American Physicians in session at Atlantic City, N. J., May 7th, awarded lectureship prizes to Dr. George F. Dick, of Chicago, and Dr. Alphonse R. Dochez, of New York, for their work in connection with scarlet fever.

THE Tippecanoe County Medical Society held a meeting at Lafayette, May 6th, with twenty-two members present. A paper on "Commoner Fundus Diseases of the Eye" was presented by Dr. Albert E. Bulson, Jr., of Fort Wayne.

THE Muncie Academy of Medicine held its regular meeting at the Hotel Roberts, May 30th. Dr. Wilbur E. Post, professor of medicine of the University of Chicago Medical School, presented a paper on "Manifestations of Impaired Renal Functions."

A JOINT meeting of the dentists and physicians of Kosciusko County was held May 13th, at the

Hotel Hays, Warsaw. Papers were presented by R. C. Leonard, D.D.S., of Pierceton, on "Toothache," and Dr. C. H. Good, of Huntington, on "Common Interests."

THE Sixth District Medical Society held a meeting at Shelbyville, May 22. Papers were presented by Drs. C. L. Marshall, of Mt. Summit; F. W. Cregor, of Indianapolis; C. J. McIntyre, Indianapolis; W. D. Gatch, Indianapolis, and L. D. Carter, of Indianapolis.

THE Huntington County Medical Society entertained the members of the Wells, Grant, Blackford and Wabash County Medical Societies at Warren, May 6th. Papers were presented by Dr. James H. Stygall, and Dr. Charles D. Humes, of Indianapolis.

DR. HOMER G. HAMER, of Indianapolis, has returned from Atlantic City, where he attended the meeting of the American Urological Association, of which he is secretary, and a meeting of the American Association of Genitourinary Surgeons at Stockbridge, Massachusetts.

THE first annual meeting of the American Association for the Study and Cure of Cancer was held at the Drake Hotel, Chicago, June 11, 1924. Papers were presented by Drs. C. E. Field, H. E. Dunlop, George W. Crile, R. C. Kelsey, William Held, A. J. Ochsner, Paul Luttinger, and E. O. Kane.

THE Northeastern Indiana Academy of Medicine held a meeting at Gawthrop Inn, Kendallville, May 22nd. Following the banquet, Dr. Robert M. Moore, of Indianapolis, addressed the meeting, his subject being "Heart Failure, Underlying Causes, Clinical Manifestations and Treatment."

FINES of \$50 and \$150 were assessed against ten chiropractors who appeared before Judge Powell, in Dayton, Ohio, on the charge of practicing medicine without a license from the state medical board. A fine of \$50 was given for the first appearance and for the second appearance the fine was \$150.

DR. CHARLES J. HATFIELD, of Philadelphia, was made president of the National Tuberculosis Association at the twentieth annual meeting of the Association held at Atlanta, Ga., May 7th to 10th. Dr. G. M. Kober, Washington, D. C., was made secretary and Dr. H. B. Platt, of New York, treasurer.

THE British Association for the Advancement of Science will hold its 92nd annual meeting in Toronto, Canada, from the 6th to the 13th of

August, 1924. Any desired information may be secured by addressing the Local Secretary, British Association, Room 50, Physics Building, University, Toronto, Canada.

THE spring meeting of the Tenth District Medical Society was held at Hammond, May 14th. Papers were presented by Drs. Wm. R. Cubbins and Robert B. Preble, both of Chicago, and Dr. S. E. Earp, of Indianapolis, presented some heart cases. In the evening Dr. Earp talked to the meeting, his subject being "The Indiana State Medical Association."

THE Italian Felix Mantovani Foundation offers four prizes ranging from 500 to 2,500 lire for the best monographs published on the physiology and pathology of infant feeding in 1924. Candidates must send three copies of their monograph to the president of the Italian Pediatric Society, Hospital A. Meyer, 115 via Mennelli, Florence, before December 31, 1924.

THE annual meeting of the Chicago Roentgen Society was held May 9th, at the Hamilton Club, Chicago. Papers were presented by Drs. H. N. Beets, and Robert A. Arens on "Physical Measurements and Comparative Technic in Relation to Biological Dosage"; Dr. B. R. Kirklin, of Muncie, on "Gallbladder Pathology Seen from the X-ray Standpoint," and Dr. Hollis E. Porter on "X-ray Observations on Spine Lesions."

THE annual meeting of the Ninth Councilor District of the Indiana State Medical Association was held at Attica, May 15th. In the afternoon papers were presented by J. S. Nave, Dr. L. J. Baldwin, of Westfield; Dr. James G. Carr, of Chicago; Dr. James H. Stygall, of Indianapolis, and Dr. R. B. Wetherill, of Lafayette. The ladies were entertained by a reception and automobile ride in the afternoon and dinner with the men in the evening.

In addition to the articles already enumerated, the following have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association:

Abbott Laboratories:

Neutral Acriflavine-Abbott for Intravenous Injection, 0.1 Gm. Ampules.

Hoffmann-La Roche Chemical Works:

Digalen-Roche (Cloetta).

Ampules Digalen-Roche (Cloetta), 1.1 Cc.

Tablets Digalen-Roche (Cloetta).

Hypodermic Tablets Digalen-Roche (Cloetta).

Lederle Antitoxin Laboratories:

Pollen Antigens—Lederle.

Giant Ragweed Pollen Antigen-Lederle; Green

Sage Pollen Antigen-Lederle; Lambs Quar-

ters Pollen Antigen-Lederle; Marsh Elder

Pollen Antigen-Lederle; Olive Pollen Antigen-Lederle; Pasture Sage Pollen Antigen-Lederle; Southwestern Ragweed Pollen Antigen-Lederle; Western Water Hemp Pollen Antigen-Lederle; Western Ragweed Pollen Antigen-Lederle.

Mead Johnson & Co.:

Mead's Powdered Protein Milk.

Ohio Chemical & Mfg. Co.:

Ethylene for Anesthesia.

E. R. Squibb & Sons:

Pollen Allergen Solutions-Squibb.

Annual Salt Bush Pollen Allergen Solution-Squibb; Arizona Ash Pollen Allergen Solution-Squibb; Arizona Cottonwood Pollen Allergen Solution-Squibb; Arizona Walnut Pollen Allergen Solution-Squibb; Ash Pollen Allergen Solution-Squibb; Black Mulberry Pollen Allergen Solution-Squibb; Bermuda Grass Pollen Allergen Solution-Squibb; Black Walnut Pollen Allergen Solution-Squibb; Brome Grass Pollen Allergen Solution-Squibb; California Black Walnut Pollen Allergen Solution-Squibb; Careless Weed Pollen Allergen Solution-Squibb; Cedar Pollen Allergen Solution-Squibb; Cocklebur Pollen Allergen Solution-Squibb; Corn Pollen Allergen Solution-Squibb; Dark Leaved Mugwort Pollen Allergen Solution-Squibb; False Ragweed Pollen Allergen Solution-Squibb; Hickory Pollen Allergen Solution-Squibb; Johnson Grass Pollen Allergen Solution-Squibb; June Grass Pollen Allergen Solution-Squibb; Lamb's Quarters Pollen Allergen Solution-Squibb; Marsh Elder Pollen Allergen Solution-Squibb; Nettle Pollen Allergen Solution-Squibb; Oak Pollen Allergen Solution-Squibb; Mugwort Pollen Allergen Solution-Squibb; Orchard Grass Pollen Allergen Solution-Squibb; Pigweed Pollen Allergen Solution-Squibb; Pine Pollen Allergen Solution-Squibb; Poplar Pollen Allergen Solution-Squibb; Ragweed Pollen Allergen Solution-Squibb; Rye Pollen Allergen Solution-Squibb; Sagebrush Pollen Allergen Solution-Squibb; Sandbur Pollen Allergen Solution-Squibb; Shadscale Pollen Allergen Solution-Squibb; Sheep Sorrel Pollen Allergen Solution-Squibb; Slender Ragweed Pollen Allergen Solution-Squibb; Sweet Vernal Grass Pollen Allergen Solution-Squibb; Timothy Pollen Allergen Solution-Squibb; Western Ragweed Pollen Allergen Solution-Squibb.

Wilson Laboratories:

Desiccated Parathyroid Substance-Wilson.

Tablets Desiccated Parathyroid Substance-Wilson, 1/20 grain.

Tablets Desiccated Parathyroid Substance-Wilson, 1/10 grain.

SOCIETIES AND INSTITUTIONS

NORTHEASTERN INDIANA ACADEMY OF MEDICINE

The Northeastern Indiana Academy of Medicine held one of its best meetings at the Gawthrop Inn at Kendallville, Thursday, April 24th. There were sixty-two doctors present to enjoy the chicken dinner.

Dr. Oliver S. Ormsby, of Chicago, presented a paper on "The Diagnosis and Treatment of Parasitic Diseases of the Skin." He illustrated the pathology and parasites with lantern slides, and gave prescriptions that are used in treating these diseases.

Dr. Charles P. Emerson, of Indianapolis, presented a series of three papers, as follows: "Mental Hygiene"; "Nature's Physiological Process of Pooling the Blood for the Relief of Over-Worked and Over-Burdened Diseased Hearts," and "Primary Anemia."

The Academy extended both doctors a rising vote of thanks and hoped that the society might be able to hear them again.

A. J. HOSTETLER, Secretary.

FOURTH DISTRICT MEDICAL SOCIETY

A meeting of the Fourth District Medical Society was held May 14, 1924, at North Vernon, Indiana, in the County Library building. Dr. W. L. Grossmann called the meeting to order at 10:45 a. m., and introduced the president, Dr. F. M. Mueller, of Lawrenceburg. The minutes of the previous meeting were read and approved. Dr. Mueller's paper entitled, "Present Day Medicine and Its Obligations," stressed the obligations on our part toward preventive medicine and our duty to direct rightly and to co-operate with lay health agencies, that we may combat the evil tendencies towards bureaucratic methods and socialization of medicine to which these agencies are leading; urged co-operation with organized medicine through real interest in the county society; recommended periodic examination to discover incipient disease as particularly opening up unbeaten paths for the general practitioner.

On motion of Dr. A. G. Osterman, Dr. Mueller's paper was referred to the State Society. Motion approved.

On motion of Dr. Stemm it was proposed that the president appoint a legislative committee; one from each county. Motion carried. The committee appointed consists of Drs. W. H. Stemm, North Vernon, Jennings county; Geo. Denney, Madison, Jefferson county; E. J. Libbert, Aurora, Dearborn county; C. E. Gillespie, Seymour, Jackson county; W. J. Norton, Columbus, Bartholomew county; B. W. Whitlatch, Milan, Ripley county; D. W. Weaver, Greensburg, Decatur county.

The House of Delegates met and meeting adjourned to 1 p. m. At 1:15 p. m. meeting was called to order. The president read report of House of Delegates. Dr. R. W. Cochran, Madison, was elected president; Dr. Carl Henning, Hanover, vice-president; Dr. O. W. Turner, Madison, secretary-treasurer.

Dr. Osterman reported three deaths the past year: Dr. Davidson, Jefferson county; Dr. Bigham, Ripley county; Dr. Ward, Switzerland county.

Dr. Stygall addressed the meeting on the publicity work of the State Society.

Dr. Martin H. Fischer, of the Cincinnati University, addressed the meeting on, "The Classification and Treatment of the Nephritides." This was discussed by C. R. Bird, of Greensburg; A. G. Ostermann, of Seymour, and Leon L. Solomon, of Louisville, Ky. Dr. Fischer received a vote of thanks from the society for his wonderfully brilliant address.

"Anaesthesia," E. U. Wood, Columbus. Discussed by G. H. Kamman, Seymour, and O. A. Turner, Madison.

"Extra Uterine Pregnancy," H. P. Graessle, Seymour. Discussed by A. P. Roope, Columbus, and Geo. E. Denney, Madison.

"Non-Surgical Treatment of Goitre," Geo. F. Smith, Lawrenceburg. Discussed by C. E. Gillespie, Seymour, and E. J. Libbert, Aurora.

"Intestinal Toxemia," S. A. Whitsitt, Kent. Discussed by A. G. W. Childs, Madison, and W. E. Thomas, Lawrenceburg.

"Why the Chiropractor," C. E. Holton, Holton. Discussed by W. L. Grossman, North Vernon, and J. W. McClure, Milan.

It was moved and seconded that delegates to the State Society from the various county Medical Societies forming the Fourth District Medical Society use their best efforts at the next state meeting to have Dr. A. P. Roope, of Columbus, elected president of the Indiana State Medical Society. Unanimously carried.

A banquet was served in St. Mary's hall at 7 p. m. One hundred and twenty were present. Dr. Leon L. Solomon, of Louisville, addressed those present on "The Family Hearthstone."

Entertainment was provided by Haney's orchestra, Mrs. N. J. Inman, Miss Bertha Seiner and Mrs. James McLeod.

Next meeting at Madison, May, 1925.

D. L. McAULIFFE, Secretary.

CORRESPONDENCE

A BOOST

To the Editor:

A little boost is at times of benefit to a fellow. Your State Journal is, I believe, the best published today. The last issue has more in it of real help to the general practitioner than any publication coming to my desk for a long time. Articles on Insulin and Diabetes are classics and cannot be bettered.

Yours,

D. L. McAULIFFE.

ABSTRACTS

THE CARDIAC DISTURBANCES ASSOCIATED WITH DISEASES OF THE THYROID GLAND

Most of the cardiac abnormalities produced by thyroid disease occur in those toxic states in which there is an elevation of the basal metabolic rate. So far as the disturbances of the cardiovascular system are concerned, there is little difference between typical exophthalmic goiter and so-called "adenoma with hyperthyroidism." In discussing the cardiac aspects of these conditions, FRANK N. WILSON, Ann Arbor, Mich. (*Journal A. M. A.*, May 31, 1924), distinguishes between primary disturbances of the heart and secondary disturbances of the heart. Under the former heading, he includes those cardiac symptoms and signs which occur invariably, or almost invariably, in severe cases of thyrotoxicosis, and which may be considered, therefore, cardinal manifestations of thyroid intoxication. Under the second heading, on the other hand, he includes those cardiac abnormalities which, because of their relative infrequency, or because their frequency and intensity do not vary directly with the intensity of the other symptoms of the primary disease, may properly be looked on as complications. Of the primary disturbances of the heart, sinus tachycardia and the evidences of overactivity of the heart associated with it are the most common. Of the cardiac complications of thyrotoxicosis, enlargement of the heart is one of the most important. Clinical evidence of myocardial changes in toxic goiter is by no means rare. Death resulting purely from the cardiac complications of toxic goiter is relatively uncommon. It is true that, in so-called postoperative thyroid shock, auricular fibrillation, with extreme ventricular tachycardia and indications of cardiovascular collapse, are seen; but necropsies in such cases usually show severe degenerative changes in the liver and other parenchymatous organs, indicating death from profound toxemia. It is probable

that death results in such instances from overwhelming intoxication, in which the heart suffers along with the other vital organs. Milder grades of cardiac weakness are not infrequent, and should be treated exactly as under other circumstances, by rest; morphin when necessary to relieve dyspnea or insure complete rest and sleep; digitalis in amounts sufficient to produce its characteristic effects, and a proper diet. The diet should be designed to meet the caloric requirements, or, perhaps, for the first few days, to fall somewhat below them; it should contain only sufficient protein to prevent a negative nitrogen balance, and should be poor in salt. As to whether adenomatous goiter without hyperthyroidism may damage the heart, it is difficult to form an opinion. Nevertheless, it is clear that a persistent enlargement of the thyroid gland, even though it be regarded as nontoxic at the time of the examination, is at least a potential menace to the myocardium.

OBSERVATIONS ON THE EFFECT OF FREEZING ON DIPHTHERIA TOXIN-ANTITOXIN MIXTURES

MARY B. KIRKBRIDE and JESSIE E. DOW, Albany, N. Y. (*Journal A. M. A.*, May 24, 1924), record the results of a careful experimental study of the effect of freezing on the toxicity of toxin-antitoxin preparations. There was no evidence of increased toxicity of the mixture which could be definitely attributed to dissociation of the toxin and the antitoxin as a result of freezing.

THE MORBIDITY OF ENDEMIC GOITER

The fact that all goiters are potentially dangerous and that most of them do, in fact, eventually produce not only symptoms but also definite pathologic lesions is emphasized by FREDERICK A. COLLIER, Ann Arbor, Mich. (*Journal A. M. A.*, May 31, 1924), and the lack of unanimity of opinion in regard to the classification of goiter is discussed. Collier follows Plummer's classification. According to this classification, there are three histologic variations from the normal thyroid structure which forms its basis: (1) hypertrophy and hyperplasia of the alveolar epithelium; (2) marked increase of the intra-alveolar colloid, and (3) the development of new alveoli. According to the predominating type of variation, a goiter may be hypertrophic, colloid or adenomatous, but any or all forms may be present in any gland. Endemic goiter is a combination of colloid and adenomatous elements. The adenomatous elements dominate the picture after 30. The percentage of patients with hyperthyroidism increases with age up to 50. In those cases in which there is a normal basal metabolic rate at the time of examination, a large percentage will show or develop eventually serious cardiovascular disorders. The time element is a most important factor in causing both hyperthyroidism and organic degenerations. Operative removal should be advised for adenomatous goiters, at least by the age of 30, as a prophylactic measure, even though no definite symptoms exist at this time.

CERVICAL SYMPATHECTOMY FOR ANGINA PECTORIS

The development of the operation of resection of the cervical sympathetic ganglions, its technic, and the innervation of the heart are reviewed by ALBERT E. HALSTEAD and FREDERICK CHRISTOPHER, Chicago (*Journal A. M. A.*, May 24, 1924). In the method employed by the senior author, the incision is made at the anterior border of the sternocleidomastoid muscle. This muscle and the carotid sheath and its contents are retracted posteriorly instead of anteriorly, as in Jonnesco's operation. The balance of the operation is along the lines laid down by Jonnesco. In one case cited, only the middle cervical ganglion was removed, by avulsion. During removal of the ganglion, the left pupil was dilated and tears came from that eye. The patient's condition was excellent throughout the operation. The postoperative course was of interest. There was a transitory impairment of the left

lower lip, which did not have its full motion. Both the pupils reacted to light and in accommodation. On the second day after operation, the blood pressure was 154/100; on the third day, 150/90; on the sixth day, 178/100; on the seventh day, 184/102, and on the ninth day, 178/100. The wound healed cleanly, and the skin stitches, which were the only ones that had been used in the closure, were removed on the sixth day. The patient was discharged from the hospital on the tenth day, and her convalescence at home has been steady and rapid. Save for a mild attack about four weeks after the operation, there have been no anginal attacks, and the diminution of the blood pressure has persisted to date (May 8, 1924).

EFFECT OF EXPOSURE TO LOW TEMPERATURES ON DIPHTHERIA TOXIN-ANTITOXIN MIXTURE

In two towns in Massachusetts, two different lots of diphtheria toxin-antitoxin mixture, after having suffered prolonged exposure to unusually low temperatures, were injected into a total of fifty-four children for the purpose of immunizing them against diphtheria, and produced severe reactions in forty-two of them. Both the local and the systemic reactions were typical of diphtheria intoxication. All the facts strongly suggested the hypothesis that the exposure to temperatures below freezing had caused the antitoxin to dissociate from the toxin, leaving free toxin present in the mixture. In order to determine the validity of this hypothesis, the experiments reported on by BENJAMIN WHITE and ELLIOTT ROBINSON, Boston (*Journal A. M. A.*, May 24, 1924), were carried out. Briefly the results were: The exposure of toxin-antitoxin mixtures to temperatures of 10 F. or less for periods of six hours or more causes a turbidity which arises from the separation and precipitation of antitoxin and, possibly, other substances. In the case of one L + mixture there is associated with the physical change an increase of toxicity due to freed toxin.

BLOOD PRESSURE IN OPERATIVE SURGERY AND GENERAL ANESTHESIA

Routine blood pressure determinations are made by RAYMOND C. COBURN, New York (*Journal A. M. A.*, May 31, 1924): (1) when the physical examination is made soon after admission; (2) just prior to the administration of the anesthetic, and (3) at the completion of the operation. To establish the normal blood pressure often requires several observations over a period of time; but, unless the normal is established, the figures may be grossly misleading. The majority of surgical patients show an elevation of blood pressure on entering the hospital, and a still greater increase just before the anesthetic is administered. A fall in pressure usually follows deep anesthesia of some duration and severe traumatism. In cases in which convulsions occur, this rule is reversed. The best means used for combating shock and hemorrhage is the gum-glucose solution (250 c.c. administered at the rate of 4 c.c. a minute) and blood transfusion, the former as an emergency measure. The salient points in the gum-glucose administration are: 1. The solution must be sterile and clear. 2. It must be given slowly. 3. It must not be given in too large amounts. 4. It should reach the vein at body temperature.

PHYSICIANS, DENTISTS AND FOCAL INFECTION IN THE DAKOTAS

There is a great divergence of views among physicians and among dentists, in the diagnosis and treatment of infections of the jaws. To assist in clarifying this situation to some extent, CHARLES FRANK MORSMAN, Hot Springs, S. D., (*Journal A. M. A.*, May 31, 1924), sent a questionnaire to 1,042 physicians and 541 dentists in North Dakota and South Dakota. He received 219 replies from the dentists and 281 replies from the physicians. The data taken from these replies makes clear that the dentists

are not agreed among themselves on many diagnostic points or on methods of treatment. Physicians hold conflicting views as to diagnosis and treatment of infection of the jaws. The two groups, as groups, are far from agreed in the important subject of focal infection. Dentists and physicians, with few exceptions, have expressed their belief that much good will come from frequent consultations between dentists and physicians relative to patients in whom they are mutually interested. Practically all who replied to this questionnaire have indirectly signified their willingness to hold such consultations.

INVERSE RELATION BETWEEN IODIN IN FOOD AND DRINK AND GOITER, SIMPLE AND EXOPHTHALMIC

J. F. McCLENDON and JOSEPH C. HATHAWAY, Minneapolis (*Journal A. M. A.*, May 24, 1924), believe that they have proved statistically that both simple and exophthalmic goiter in the United States are caused by iodine starvation. In this paper, they present the results of their analyses of foods from goitrous (Minnesota and Oregon) and nongoitrous (New England and California) regions. In the nongoitrous regions, the iodine content of the food may be 100 per cent higher than that in the goitrous regions. Larger amounts of iodine were obtained from milk and animal products and leafy vegetables and fruits, than from wheat. It is significant to note that canned salmon (this is also true of some other sea fish) does not contain as much iodine per ton of dry weight as some leafy vegetables raised in goitrous regions. In fact, milk, the leafy vegetables and some fruits (loganberries) contain the highest amounts of iodine of any land products. If these vegetables are thoroughly macerated or ground in the preparation of the food, it is probable that the iodine can be extracted in the alimentary canal; but with some fruits most of the iodine is in the seeds and skins, and sometimes these are not eaten; when the seeds are swallowed whole, many of them will germinate after passing the alimentary canal, and therefore it may be assumed that they have not been extracted thoroughly in regard to any constituent. To demonstrate the iodine retained from a normal diet, one of the authors, who had lived all his life in a goitrous region, but has always been free from goiter, was the subject of a three-day metabolic period. For a three-day period the iodine intake was 0.57 mg., and there was excreted 0.021 mg., showing a retention of 0.036 mg. in three days, or 0.012 mg. a day. At this rate, it would require about ten years to accumulate 40 mg. of iodine, the normal iodine content of the thyroid. The iodine content of drinking waters was also investigated. The iodine poor waters contained less than 23 parts per hundred billion, and practically all the iodine rich waters contained more than 23 parts per hundred billion. The highest iodine content was 18,470 times as great as the lowest. This answers the objection some people have to putting minute traces of iodine in drinking water in order to prevent goiter. These persons would drink water of another locality containing, say, 15,000 times as much iodine as the water of their home town, without the slightest objection, and, so far as has been observed, without the slightest ill effect. From the quantity in the normal thyroid gland and the rate at which a person may drink water, we calculate that in goitrous regions the iodine should be added up to 1,000 parts per hundred billion (or 1 part per hundred million). This is easily accomplished by adding about one-tenth pound (45 gm.) of sodium iodine per million gallons of water. The iodine content would then be less, in fact only from one-fifth to one-tenth of the iodine content of drinking water of some of the cities of the United States. Therefore the authors cannot see what objection there could be toward having the iodine content this high. On the other hand, assuming a person drank a liter a day of the treated water, that would give him 0.01 mg. of iodine a day; and since a normal person retains about this quantity of iodine, even though the iodine of the food was entirely excreted, the iodine requirements of the individual would be satisfied.

TRUTH ABOUT MEDICINES

NEW AND NONOFFICIAL REMEDIES

CRYOGENINE.—**PHENYLSEMICARBAZIDE.**—Cryogenine is an antipyretic and analgesic. It is claimed that cryogenine does not affect digestion and that it has scarcely any effect on the circulation and respiration. Cryogenine is claimed to be useful as an antipyretic in febrile conditions. As an analgesic, it is said to be of value in rheumatism, headache, sciatica, gout and in painful conditions generally. Cryogenine is marketed in the form of powder and 0.5 Gm. tablets.

NEOARSPHENAMINE-MALLINCKRODT.—A brand of neoarsphenamine-N. N. R. For a discussion of the actions, uses and dosage of neoarsphenamine, see New and Nonofficial Remedies, 1924, p. 49. Neoarsphenamine-Mallinckrodt is marketed in ampules containing, respectively, 0.15, 0.3, 0.45, 0.6, 0.75, 0.9 and 1.5 Gm.

Iletin (Insulin-Lilly) U-40.—Each ampule contains 40 units of Iletin (Insulin-Lilly) (see New and Nonofficial Remedies, 1924, p. 152). (*Jour. A. M. A.*, May 3, 1924, p. 1443).

ETHYLENE FOR ANESTHESIA.—**AETHYLENUM PRO NARCOSI.**—It contains not less than 98 per cent by volume of ethylene. Trials on human subjects have confirmed the anesthetic and analgesic value of ethylene as demonstrated on animals. Deep surgical anesthesia is stated to be produced easily and analgesia comes on readily and apparently long before surgical anesthesia is established. Given with oxygen, it has been found more powerful than nitrous oxide for animals and man, and in most cases as effective as ether. Trials indicate that ethylene is of value for the production of surgical anesthesia, and that it has advantages over nitrous oxide. Ethylene for anesthesia is supplied in the compressed state in metal cylinders. To avoid accidental explosion, ethylene must not be brought in contact with a naked flame or an electric spark. Ohio Chemical and Mfg. Co., Cleveland. (*Jour. A. M. A.*, May 17, 1924, p. 1609).

DESICCATED PARATHYROID SUBSTANCE—WILSON.—The exterior parathyroids of the ox, freed from fat, cleaned, dried and powdered. For a discussion of the actions and uses of parathyroid gland, see New and Nonofficial Remedies, 1924, p. 224. Desiccated parathyroid substance-Wilson is marketed in the form of powder and in tablets containing, respectively, 1/20 grain and 1/10 grain. Wilson Laboratories, Chicago. (*Jour. A. M. A.*, May 24, 1924, p. 1693).

MEAD'S POWDERED PROTEIN MILK.—A milk preparation having a relatively high protein content and a relatively low carbohydrate content. Each 100 Gm. contain approximately protein 37 Gm., butter fat 31 Gm., free lactic acid 3 Gm., lactose 19 Gm., and ash 4.6 Gm. When suitably mixed with water, powdered protein milk is said to be useful for correcting intestinal disorders of infants and children. Mead Johnson & Co., Evansville, Indiana.

POLLEN ANTIGENS-LEDERLE.—In addition to the products listed in New and Nonofficial Remedies, 1924, p. 252, the following have been accepted: Giant Ragweed Pollen Antigen-Lederle; Green Sage Pollen Antigen-Lederle; Lambs Quarters Pollen Antigen-Lederle; Marsh Elder Pollen Antigen-Lederle; Olive Pollen Antigen-Lederle; Pasture Sage Pollen Antigen-Lederle; Southwestern Ragweed Pollen Antigen-Lederle; Western Water Hemp Pollen Antigen-Lederle; Western Ragweed Pollen Antigen-Lederle. Lederle Antitoxin Laboratories, New York.

POLLEN ALLERGEN SOLUTIONS-SQUIBB.—In addition to the products listed in New and Nonofficial Remedies, 1924, p. 251, the following pollen allergen solutions-Squibb are marketed in packages of two tubes diagnostic solution; in packages of six tubes (assorted) diagnostic solution; in 5 Cc. vials for treatment only: Annual

Salt Bush Pollen Allergen Solution-Squibb; Arizona Ash Pollen Allergen Solution-Squibb; Arizona Cottonwood Pollen Allergen Solution-Squibb; Arizona Walnut Pollen Allergen Solution-Squibb; Ash Pollen Allergen Solution-Squibb; Black Mulberry Pollen Allergen Solution-Squibb; Black Walnut Pollen Allergen-Squibb; Brome Grass Pollen Allergen Solution-Squibb; California Black Walnut Pollen Allergen Solution-Squibb; Careless Weed Pollen Allergen Solution-Squibb; Cedar Pollen Allergen Solution-Squibb; Cocklebur Pollen Allergen Solution-Squibb; Corn Pollen Allergen Solution-Squibb; Dark Leaved Mugwort Pollen Allergen Solution-Squibb; False Ragweed Pollen Allergen Solution-Squibb; Hickory Pollen Allergen-Solution-Squibb; Johnson Grass Pollen Allergen Solution-Squibb; Lamb's Quarters Pollen Allergen Solution-Squibb; Marsh Elder Pollen Allergen Solution-Squibb; Nettle Pollen Allergen Solution-Squibb; Oak Pollen Allergen Solution-Squibb; Pigweed Pollen Allergen Solution-Squibb; Pine Pollen Allergen Solution-Squibb; Poplar Pollen Allergen Solution-Squibb; Rye Pollen Allergen Solution-Squibb; Sandbur Pollen Allergen Solution-Squibb; Shadscale Pollen Allergen Solution-Squibb; Sheep Sorrel Pollen Allergen Solution-Squibb; Slender Ragweed Pollen Allergen Solution-Squibb; Sweet Vernal Grass Pollen Allergen Solution-Squibb.

The following pollen allergen solutions-Squibb are marketed in packages of two tubes diagnostic solution; in packages of six tubes (assorted); in treatment sets consisting of: Set A: ten vials containing consecutive doses (Nos. 1 to 10, inclusive); Set B: five vials containing consecutive doses (Nos. 1 to 5, inclusive); Set C: five vials containing consecutive doses (Nos. 6 to 10, inclusive); Set D: five vials of dose No. 10: Bermuda Grass Pollen Allergen Solution-Squibb; June Grass Pollen Allergen Solution-Squibb; Mugwort Pollen Allergen Solution-Squibb; Orchard Grass Pollen Allergen Solution-Squibb; Ragweed Pollen Allergen Solution-Squibb; Sagebrush Pollen Allergen Solution-Squibb; Timothy Pollen Allergen Solution-Squibb; Western Ragweed Pollen Allergen Solution-Squibb. E. R. Squibb & Sons, New York. (*Jour. A. M. A.*, May 31, 1924, p. 1781).

PROPAGANDA FOR REFORM

RADIUM AND RADIUM EMANATION.—Radium is commonly supplied in the form of radium salts enclosed in containers. Also, tubes containing radium emanation are available. Salts of radium disintegrate at a rate so that 1,780 years elapse before the compound loses one-half of the initial activity. On the other hand, radium emanation loses about 0.75 per cent of its activity each hour, and consequently, its activity is practically gone after one month. (*Jour. A. M. A.*, May 3, 1924, p. 1462).

LIPOSAN.—According to the advertising, Liposan is "a Vegetable Lipoidal Solution" which has chaulmoogra oil as its "medicinal element." Liposan is claimed to be "indicated" in "Abscesses," "Acne," "Anaemia," "Arthritis," "Agitans," "Boils," "Bubo," "Cancer," "Chorea," "Cystitis," "Eczema," "Erysipelas," "Furunculosis," "Herpes," "Hemiplegia," "Ivy Poisoning," "Myalgia," "Neuralgia," "Neuritis," "Peritonitis," "Pyorrhoea," "Infantile Paralysis," "Pneumonia," "Rheumatism," "Synovitis," "Syphilis," "Salt Rheum," "Tubercule," "Tonsillitis," "Ulcerations (Indolent)," "Varicositis." The proprietors, Hoffman and Hicks, have not requested an examination of Liposan by the Council on Pharmacy and Chemistry, and so far the A. M. A. Chemical Laboratory has not examined the product. A physician will be justified in his refusal to accept the unproved claims of the manufacturer. He might be justly criticised were he to administer intravenously a product which, so far as he knows, is unstandardized and of wholly questionable value. (*Jour. A. M. A.*, May 3, 1924, p. 1462).

SILICA IN TUBERCULOSIS.—Compounds of silica have found a place during recent years among drugs of reputed value in the treatment of tuberculosis. In view of their extreme insolubility, one would scarcely expect them to exert any immediate pharmacodynamic effect. Nevertheless, there is evidence that silica finds its way into the tissues and organs and remains deposited, notably in connective tissues. This has given rise to the hypothesis that the element plays a part in determining the elasticity and tensile strength of fibrous tissues, although the smallness of the quantities of silica ordinarily found should make one extremely skeptical of the validity of any conclusion of this sort. Nevertheless, various silica-containing teas or drugs have been recommended in the hope that they would increase the amount or improve the quality of the connective tissue that forms the defense about tuberculosis lesions. A study at the Sprague Institute in Chicago by Maver and Wells brought nothing but negative results through the administration of silica preparations to tuberculous animals. (*Jour. A. M. A.*, May 17, 1924, p. 1610).

NUGA-TONE.—This is a nostrum sold on the mail order plan by a concern in Chicago called the "National Laboratory"—the latest name under which one Charles E. Cessna carries on mail order quackery. Nuga-Tone is described as the "Great Nerve and Blood Builder." It has been advertised in that class of weeklies sometimes described as the "cheap and nasty." The advertising does not tell just what is in Nuga-Tone. It does say that it is "rich" in iron and phosphorus, and also contains cascara and "nux." Further, one is told, "there are four other medicines" in Nuga-Tone. The death of a boy, three and a half years old, who had taken Nuga-Tone tablets in his parents' absence, is reported. When the death was brought to the attention of the National Laboratory, a formula was furnished which showed that each tablet contained 1/60 grain of mercuric chlorid, 1/16 grain of strychnin sulphate and 1/40 grain of arsenic trioxid. There is no law in this country which prohibits the indiscriminate sale of such dangerous nostrums. (*Jour. A. M. A.*, May 17, 1924, p. 1628).

PAINODYNES.—"Painodyne" is marketed in the form of tablets by the Wm. A. Webster Co., Memphis, Tenn. An advertising circular describes Painodynes as "an organic compound containing neurodyne 5 grains, theine citrated ½ grain, combined with triple bromides ½ grain." The circular does not disclose the composition of neurodyne or of the "triple bromides" which are claimed to be present in the mixture. Theine is another name for caffeine, and hence "theine citrated" is no doubt intended for the well-known citrated caffeine. Tests were made in the A. M. A. Chemical Laboratory which showed the product to contain relatively large amounts of acetylsalicylic acid. Painodyne is evidently an irrational "shot gun" mixture marketed with unwarranted claims. (*Jour. A. M. A.*, May 17, 1924, p. 1632).

BACILLUS ACIDOPHILUS THERAPY.—Through the use of *Bacillus acidophilus* cultures a transformation of the intestinal flora of man from a proteolytic to an aciduric type can generally be induced. In cases of constipation beneficial effects in the direction of more ready defecations are said to arise. *Bacillus acidophilus* milk has attained the dignity of tentative recognition by the Council on Pharmacy and Chemistry, though this must not be interpreted as a recommendation for the use of the product. Bearing on the question of how *Bacillus acidophilus* milk acts, experiments have been made which indicate that the action is a strictly bacteriological one, and not physical or chemical. It was found that *Bacillus acidophilus* milk from which the bacteria have been removed was practically without effect in its influence on constipation. Regular *Bacillus acidophilus* milk ingested subsequently resulted in an increase in the number of defecations. (*Jour. A. M. A.*, May 24, 1924, p. 1696).

INSULIN AND KETOSIS.—Ketosis is not confined solely to cases of diabetes. It is an accompaniment of carbohydrate starvation, however produced. Acidosis is not infrequently found in preoperative or postoperative conditions, owing to enforced deprivation of food for one reason or another. It is found accompanying so-called toxic vomiting, sometimes particularly in the persistent type seen in pregnancy. Attention has been called to the use of insulin in the treatment of nondiabetic acidosis. The alleviation of this condition through the administration of glucose by rectum or parenterally has been demonstrated. More prompt success has been reported through the combined use of insulin hypodermically and glucose intravenously. While the treatment gives promise, it is not free from danger. Insulin therapy demands care in the case of a diabetic patient. Doubly great is the need of intelligent precaution with nondiabetic patient. (*Jour. A. M. A.*, May 24, 1924, p. 1695).

PROMONTA NOT ACCEPTED FOR N. N. R.—Promonta (manufactured by the Chemische Fabrik Promonta G.m.b.H., Hamburg, Germany and distributed in the United States by the Acme Pharmaceutical Co., Chicago) is said to be "an organic preparation from nervous matter of the central nervous system combined with polyvalent vitamins, lime, iron, hemoglobin and soluble albuminoids." Promonta is reminiscent of the "Nerve, Brain and Skin foods," "nerve tonics," etc., which had their vogue in the United States before the passage of the Food and Drugs Act; like them, it is recommended for "neurasthenia," "all kinds of fatigue and exhaustion," "anaemia," "bloodlessness," "impaired vitality," etc. The inclusion of "4 per cent." of "polyvalent vitamins" (source not stated) is a modern touch, as is also the reference to experiments on animals (with pictures) which had been made to grow more rapidly by the addition of "Promonta" to their usual diet. Promonta is an irrational mixture of secret composition exploited under preposterous claims. (*Jour. A. M. A.*, May 24, 1924, p. 1712).

ZINC-BOROCYL NOT ACCEPTED FOR N. N. R.—The Council on Pharmacy and Chemistry reports that, according to the Al-Sano Chemical Products Co., Zinc-Borocyl is a definite chemical compound. The label of the trade package gives "boridiorthotic oxybenzoic acid zinc" as a synonym for Zinc-Borocyl, but it also declares that the product which is marketed is not the substance to which the name "Boridiorthotic oxybenzoic acid zinc" is applied, but that "the contents of this bottle represent a concentrated solution" of this product. From the information furnished the Council and the statements on the label and in the advertising, it may be concluded that "Zinc-Borocyl" is a solution containing the so-called zinc borosalicylate in undeclared amounts. Its exploitation is essentially an attempt to introduce an old German nostrum—Mucosan—to American physicians under a new name. Zinc-Borocyl is offered as a germicide, antiseptic and astringent, and is recommended for a host of conditions. The Council declared Zinc-Borocyl inadmissible to New and Nonofficial Remedies because (1) its composition is not correctly declared; (2) it is an unoriginal preparation marketed under a proprietary noninforming name; (3) the recommendations for its use are not upheld by acceptable evidence, and (4) the available information fails to show that the product claimed to be zinc borosalicylate has any advantage over established zinc salts. (*Jour. A. M. A.*, May 24, 1924, p. 1712).

FERRASSIN NOT ACCEPTED FOR N. N. R.—The Council on Pharmacy and Chemistry reports that Ferrassin is marketed by Robert Wollheim in the form of tablets and capsules. They are said to be composed of "Vegetable iron," "Peptonized Iron and Manganese," "Plant Albumin," and Milk Sugar. No information is furnished in regard to the composition of "Vegetable Iron" or of "Peptonized Iron and Manganese." Ferrassin was de-

clared inadmissible to New and Nonofficial Remedies because its composition is secret and it is marketed with unestablished and unwarranted claims. (*Jour. A. M. A.*, May 24, 1924, p. 1712).

TERSUL-HILLER NOT ACCEPTED FOR N. N. R.—The Council on Pharmacy and Chemistry reports that Tersul-Hiller (Robert Wollheim, distributor) is a German preparation of silicon and calcium proposed as "An Adjuvant to the Treatment of Tuberculosis, Rachitis, etc." Physicians are told that Tersul-Hiller is: "Composed essentially of coincidentally water-soluble silica and water-soluble calcium salts as shown by the following approximate percentage formula: Silica (new process) $4\frac{1}{2}$ gr., Calcium lactate $7\frac{1}{2}$ gr., Calcium hypophosphate $\frac{3}{4}$ gr., Calcium phosphate $7\frac{1}{2}$ gr., Calcium fluorid $1\frac{1}{2}$ gr., Calcium carbonate 60 gr., Magnesium phosphate 3 gr., Milk Sugar 15 gr." From this formula it would appear that Tersul-Hiller is a mixture containing a silica compound of undeclared composition and a mixture of soluble and insoluble calcium compounds—chiefly calcium carbonate. The Council found Tersul-Hiller inadmissible to New and Nonofficial Remedies because (1) there is no acceptable evidence for the therapeutic use of silica preparations; (2) the identity of the silica compound is not declared; (3) the use of the mixture is irrational, and (4) the claims for its therapeutic effects are unwarranted. (*Jour. A. M. A.*, May 24, 1924, p. 1712).

SAN-I-SAL.—Newspaper advertisements have appeared during the past month or two advising the obese public of "A Guaranteed Way to Take Off Two to Five Pounds in One Bath." The product advertised is "San-I-Sal, the Pine Hot Springs Bath." It is sold by the San-I-Sal Laboratories, Washington, D. C. The advertising claims are typical of "patent medicine" obesity cures. According to the specifications of a patent granted by the U. S. Patent Office, the "invention" is said to relate to "a composition of matter for producing a medicated bath of particular value in the treatment of obesity." The "composition" is stated to be: epsom salt 90 per cent, baking soda 2 per cent, table salt 5 per cent, Canada balsam 2 per cent, oil of pine needles 1 per cent. The specifications also declare that the substance used in the bathing water has been found to afford "great relief in cases of inflammatory rheumatism and ailments of a similar character." That a mixture of epsom salt, baking soda and table salt with a small quantity of Canada balsam and oil of pine needles should be granted a patent by the U. S. Patent Office as a new and useful invention, makes one wonder just how much intelligence on medical subjects there is displayed by the Patent Office. (*Jour. A. M. A.*, May 31, 1924, p. 1800).

BOOK REVIEWS

THE NOSE AND OLFATORY ORGAN IN MAN. By J. Parsons Schaeffer, A.M., M.D., Ph.D., Professor of Anatomy and Director of the Daniel Baugh Institute of Anatomy of the Jefferson Medical College of Philadelphia. 204 illustrations, 18 in color. 370 pages. Cloth. P. Blakiston's Son & Co., 1920.

This work is the culmination of years of study and investigation on the part of the author who is an anatomist of recognized authority. It represents personal studies and observations on the genesis, development, and anatomy of the nose and its related parts. The descriptions and discussions are based upon researches by the author extending over a period of years, and even the illustrations, practically all of which are original, are based upon preparations, reconstructions and dissections by the author and reproduced either by him or under his directions.

Every one recognizes that a knowledge of human anatomy is of paramount importance in a comprehensive understanding and interpretation of both macroscopic and microscopic anatomy, but the trouble with most

students is that they form conceptions from an ideal or typical form whereas it is only in a general way that we accept these typical or ideal forms, even though all regions and organs must needs be approached in a large measure from the viewpoint of an average anatomy, despite the fact that relatively few specimens wholly conform to it. Admittedly very many variations are insignificant and can be ignored in the practical field despite the fact that they may be of interest and great value to the student of embryology and morphology. However, it is a matter of grave concern to the physician and surgeon that many important normal variations and anomalies must be dealt with continually. It is, therefore, clearly obvious that the adherence to a certain fixed and arbitrary normal is fraught with danger, since with variations come altered size, altered shape, and altered anatomical relations. Morphological variation must necessarily have an important bearing on physical diagnosis, pathology, clinical medicine, and surgery.

This study of the embryologic and developmental anatomy of the nose and its related parts, the first of its kind so far as we know, is a valuable addition to our knowledge and is of practical importance to every progressive physician and particularly to the rhinologist who can not afford to omit this work from his library.

OBSTETRICS FOR NURSES. By Charles B. Reed, M.D., Obstetrician to Wesley Memorial Hospital, Chicago. 144 illustrations, including 2 color plates. Cloth, \$3.50. St. Louis: C. V. Mosby Company, 1923.

This is the second edition of a popular "Obstetrics for Nurses". The fact that the first edition was exhausted in a comparatively short space of time proves an appreciation for the book. "The text has been abbreviated in many places and enlarged and emphasized in others to conform to our constantly changing thought." The author has maintained that conciseness of expression combined with fullness of information which distinguished the first edition. The reviewer can repeat his previous opinion that this is one of the best of the many "Textbooks for Nurses."

OPERATIVE SURGERY. COVERING THE OPERATIVE TECHNIC INVOLVED IN THE OPERATIONS OF GENERAL AND SPECIAL SURGERY. By Warren Stone Bickham, M.D., F.A.C.S., former Surgeon in charge of General Surgery, Manhattan State Hospital, New York; former Visiting Surgeon to Charity and to Touro Hospitals, New Orleans. In six octavo volumes totaling approximately 5,400 pages with 6,378 illustrations, mostly original and separate desk index volume. Now ready—Volume I, containing 850 pages with 921 illustrations. Volume II, containing 877 pages with illustrations. Volume III, containing 1,249 illustrations. Cloth, \$10.00 per volume. Sold by subscription only. Index volume free. Philadelphia and London: W. B. Saunders Company, 1924.

Let it be known at the outset that the reviewer recommends this system of operative surgery to both general practitioners and surgical specialists—he is sure that they will find it of immense practical benefit.

The author points out in his preface that, "The *raison d'être* of the present work is to cover, in one writing, and in a manner both condensed and methodic, the description of the chief operations, upon the chief organs, tissues and parts of the human body—not *all* the operations, upon *all* the organs, tissues and parts." He is entitled to a review based upon this standard.

This six-volume work is, in a sense, an expansion of the author's textbook of Operative Surgery. It seems almost inconceivable that one man would attempt to produce 2,000,000 words of text, presenting not only the general surgical operations but also those concerned with the gynecologic, obstetric, genito-urinary, orthopedic as well as eye, ear, nose and throat specialties. Dr. Bickham

has attempted and creditably accomplished this monumental task. He states that "Save for the artists, no other collaborator has contributed any constructive, or other form of aid, or suggestion, in the production of the present volumes."

The first three volumes of this important contribution to the literature of operative technic are now in print. Briefly, their contents are as follows: Volume I presents operative preparations, anesthesia, conduction of operations, after treatment, skin grafting, transplantations, amputations, artificial limbs, excision of bones and joints. Volume II deals with arteries, veins, lymphatics, nerves, bones, joints, muscles, tendons, cartilages, skull and brain, spine and cord. Volume III describes the other operations upon the head, including those on the organs of special sense, and the operations on the neck and chest.

Opinions will differ as to the importance of certain operative measures which have not been mentioned in this work. In the opinion of the reviewer, it was a very grievous error to have omitted a description of the Frazier-Spiller operation of division of the sensory root of the fifth nerve—a method which is now universally accepted as the surgical treatment of the major neuralgia. The Cushing, Hartley-Krause, Rose and Doyen operations are well and adequately described, but no neurologic surgeon, with the possible exception of Hutchinson, practices any of these operations on the ganglion. Volume III contains no mention of the closed method of treating empyema and, from the standpoint of the general practitioner, this is one of the most important operative procedures. In the section devoted to operations for breast cancer one finds Halstead's, Willy Meyer's, Handley's and Kocher's methods very beautifully described, but nothing can be found about the very useful and widely employed Stewart operation. The method of nerve suturing, illustrated by Figs. 1175-1178 is founded upon a misconception of nerve regeneration and it should not have been described in this work.

The author describes the preparation of patients for operation and then covers the same ground in discussing the preparation of patients for anesthesia. It is rather strange that nothing is said about the employment of pituitary extract for the relief of post-operative distention.

Publishers and author must be congratulated upon the splendid illustrations, the beautiful paper and the durable binding which add much to the value of these volumes.

GENITO URINARY DISEASES AND SYPHILIS. By Henry H. Morton, M.D., F.A.C.S., Professor of Genito Urinary Diseases and Syphilis in the Long Island College Hospital, and Genito-Urinary Surgeon to the Long Island College Hospital and Polhemus Memorial Clinic; formerly member of the Committee on Venereal Diseases in the Office of the Surgeon General, etc., etc., etc. Fifth edition, revised and enlarged. 328 illustrations and 38 full page colored plates. Cloth, \$10.00. New York: Physicians' and Surgeons' Book Company, 1924.

The need for a fifth edition of this practical textbook proves that it is highly regarded by the medical profession. That this work is written for everyday use is shown by the titles of the early chapters: Chapter I deals with turbid urine; chapter II with hematuria; chapter III with tests of kidney function, and chapter IV with radiography. Dr. Archibald Murray gives a synopsis of the laboratory procedures for the urologist. Dr. Carl H. Laws has outlined the treatment of congenital syphilis in infants and children and Dr. Alfred C. Beck describes the methods of treating pregnant women infected with syphilis. Dr. A. L. Bell has revised the chapter on radiography and pyelography. Dr. Alfred Potter has written the chapter on the Wassermann

reaction and its clinical relations. Dr. L. C. Johnson has written the chapter on blood chemistry and Albert M. Judd the chapter on gonorrhoea in women.

On page 10 it is stated that a 10% solution of sodium bromide is satisfactory for pyelography, while on page 27 we read, "The solutions used at present are 25% solution of sodium bromide and 25% solution of sodium iodide." As a matter of fact, a 10% solution of bromide of soda will not cast a satisfactory shadow and the proper solution of the iodide of soda is 17.5%. The colored cystoscopic plates are practically all borrowed from Luys-Wolbarst. The other plates are original and highly satisfactory. One is rather surprised to read that for circumcision, "On account of the objections to the use of novocaine injected hypodermically, the author prefers to use a general anesthetic." The use of fulguration in the treatment of bladder papillomas is not mentioned. The author deprecates the two-stage method of prostatectomy and uses it only when a catheter can not be retained in the urethra. The chapters devoted to the topic of syphilis are in keeping with the modern ideas about this disease.

A TEXTBOOK OF ANATOMY AND PHYSIOLOGY FOR SCHOOLS OF NURSING, NORMAL SCHOOLS AND COLLEGES. By Jesse F. Williams, M.D., Professor of Physical Education, Teachers' College, Columbia University, New York City. 12 mo. of 523 pages with 369 illustrations. Cloth, \$3.00 net. Philadelphia and London: W. B. Saunders Company, 1923.

Dr. Williams states that "In the writing of this book an effort has been made to present the basic and essential data concerning the structure and function of the human body in an orderly and logical sequence." We feel that he has succeeded in this difficult task. The approach is the biologic one, beginning with the cell and following through the different systems of the body. This book will be a distinct help to both teachers and students and is a valuable addition to "Saunders' Nursing Service Books."

OBSTETRICAL NURSING. By Charles Summer Bacon, Ph.B., M.D., Professor of Obstetrics in the University of Illinois and the Chicago Polyclinic; Medical Director in the Chicago Lying-In Hospital, etc. Second edition, revised. Illustrated. 340 pages. Cloth. Price, \$2.75. Lea & Febiger, Philadelphia and New York, 1924.

An obstetrical nurse is a physician's assistant and accordingly should have a comprehensive knowledge of the supervision and care of the reproductive functions in woman and especially during labor. The author of this textbook has given information that is needed by all nurses whether they have had much training or not, and also will be found useful to acquaint doctors and students with what constitutes good attention and assistance on the part of nurses who are called into their obstetrical cases.

HYGIENE OF THE VOICE. By Irving Wilson Voorhees, M.S., M.D., Fellow of the New York Academy of Medicine; Assistant Surgeon to the Manhattan Eye, Ear and Throat Hospital; Consultant to The Rockaway Beach Hospital, etc. 205 pages. Cloth. Price, \$2.50. New York: The MacMillan Company, 1923.

The author of this textbook has had a large experience in examining, advising, and treating singers and speakers. He therefore is peculiarly fitted to write intelligently and authoritatively on the care of the voice.

Perhaps the best thing that can be said about this work is that it deals with the subject from the medical standpoint and does not presume to tell either teacher or pupil concerning changes in methods the prescribing of which belongs exclusively to the singing teacher. He does, however, take into consideration those abnormalities,

(Continued on Adv. Page xx.)

THE JOURNAL

OF THE

INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

ISSUED MONTHLY under Direction of the Council

ALBERT E. BULSON, Jr., B.S., M.D., Editor and Manager

OFFICE OF PUBLICATION: 406 West Berry Street, FORT WAYNE, INDIANA

VOLUME XVII

JULY, 1924

NUMBER 7

ORIGINAL ARTICLES

SOME PROBLEMS OF BLOOD TRANSFUSION*

W. D. LITTLE, M.D.
INDIANAPOLIS

The commoner problems of blood transfusion arise in connection with the selection of a suitable method of performing the operation, the prevention of reactions following it, the testing of bloods for compatibility, the determination of the amount of blood to be given and deciding in what diseases or conditions it is indicated.

The ideal method of blood transfusion has not yet been developed. The original direct, or artery to vein anastomosis methods are ideal in one respect¹. The blood is not removed from vessel walls and there is no opportunity for incipient clotting changes to occur². However, the impossibility of measuring the amount given, the danger of infection of the donor, the technical difficulty of the anastomosis and the sacrifice of an artery of size all combine to condemn the procedure.

Methods which use sodium citrate solution to arrest coagulation are recommended because of the simplicity of the apparatus and the ease of obtaining it. In an emergency, if sodium citrate is available, almost any container with needle or cannula and rubber tubing will permit the performance of transfusion. However, many forms of apparatus in common use are distinctly undesirable since the collection of the blood is slow and shaking, churning or some vigorous means of agitation is necessary. A flask in which a vacuum or pressure may be maintained offers many advantages.

The collection time is short, the injection may be carried out promptly and gentle agitation is sufficient to mix the blood and citrate thoroughly.

As yet there is doubt whether or not the use of sodium citrate solution is harmful. By considering the published evidence one may prove that its use is harmful, not harmful or even beneficial depending upon one's own personal prejudice or belief. If the oxygen carrying

power of the blood is alone the difficulty, as in cases of acute hemorrhage, the citrate method is perhaps as good as any and better if it can be done more quickly. Such a stand is not unreasonable and leaves the wisdom of increasing its indications to include disease of the blood-forming organs and extreme anamias an open question.

Syringe and syringe cannula methods require an abundance of skilled assistance and are needlessly cumbersome if a transfusion of enough blood to serve a useful purpose is to be done. Transfer of infection from patient to donor is possible in the syringe cannula method.

Transfusion by means of tubes coated with paraffin offers many advantages, especially if tubes of 150 to 200 cubic centimeters capacity are used. Such quantities are quickly drawn and more quickly injected. The collection of larger quantities is not desirable. Cannula tips, although usually integral with the tubes, are of various sizes so that the blood may be collected as rapidly as the size of the vein will permit.

The use of whole blood quickly transferred is open to absolutely no objection and is especially to be urged since fewer reactions result from its use.

Some paraffined tube methods are open to criticism. Vincent's method adopts the use of a needle instead of a cannula and the blood is necessarily outside vessel walls a greater length of time. The Percy tube and others are of huge size and when used the entire amount of blood to be given is drawn before injection is begun. Incipient clotting changes are much more likely to develop in either case. If the smaller tubes of 150 to 200 cubic centimeters capacity are used, the operation of blood transfusion more nearly approximates the ideal than any method now in use.

The tubes are easily sterilized and can be kept ready at all times. The opening of a superficial vein is no sacrifice by the donor and is quickly done without pain by means of one-half of one per cent novocain solution. One hundred to 200 cubic centimeters of blood are quickly drawn—the actual time varies with individual donors and details of technique—and the blood promptly injected into the waiting vein of the patient. No

*Presented before the Section on Surgery of the Indiana State Medical Association at the Terre Haute Session, September, 1923.

agitation is necessary and possible damage to the collected blood is minimal.

The only valid objection to a vein opening technique exists in a limited number of cases—those in which there is blood stream infection of the patient. In such cases there is real danger of transferring infection to the donor and adequate help must be available to prevent its occurrence.

Since the work of Guthrie and Huck³ there seems to be no doubt that the bloods of donor and recipient should be directly matched and not grouped. More time is consumed and in case of emergency, grouping only may be risked. Occasional fatalities are reported following blood transfusion and when the time is available direct matching is preferable since it tends to lessen the number of such accidents and eliminates a number of non-fatal reactions. Moreover, it is common knowledge that after several transfusions it becomes increasingly difficult to find a suitable donor⁴. Many persons having the same blood group are incompatible and careful matching of the bloods is imperative in such instances⁶. The microscopic method of testing for compatibility requires a very small sample of serum and cell suspension of each person and may be quickly repeated to further check the result.

Reactions following transfusion have been ascribed to a vast number of causes and perhaps any one, at times, may be responsible. Nevertheless the similarity of reactions, particularly the more common variety, leads to the belief that a common cause, present in whatever method is used, may be at fault. There are two chief varieties of reactions. First, one of relatively uncommon occurrence due to undetected incompatibility of the bloods. Its onset is prompt and alarming and the outcome usually fatal if the transfusion is not discontinued. This group perhaps should include the type mentioned by Clough and Clough⁴ as occurring after multiple transfusions. It seems to be due to an artificial or built up hemolysin or agglutinin against bloods of the same group. Hence when occurring it should be considered the result of an undetected incompatibility.

The second broad group is most often initiated by chill and followed by fever and may be associated with headache, nausea, vomiting and even hematuria. It comes on late instead of early and is frequently delayed until some time after the completion of the operation. It has been ascribed to sodium citrate, questionable distilled water, rubber tubing, incipient clotting changes of the blood, and many other factors.

Whenever blood is removed from vessel walls clotting begins and the finer initial changes presumably occur while the fluid character is preserved. Whatever substance or device is used to retard clotting this type of reaction occurs. It is generally reported to be more frequent when

sodium citrate solution is used. If the theory is sound that incipient clotting changes are a frequent cause of reactions, it seems probable that sodium citrate solution should not be blamed entirely but that the method of using it should be criticised. If instead of drawing the entire amount of 500 to 800 cubic centimeters before injection is begun, smaller amounts of 100 to 200 cubic centimeters be drawn and injected repeatedly, the blood is not outside vessel walls so long and clotting changes are less likely to occur.

The amount of blood needed by a patient depends largely upon the condition or disease to be combated. We know that donors give from a pint to a pint and a half of blood without more than temporary discomfort. Whenever approximately a quart of blood has been taken at one time there are distinct symptoms which are not recovered from until several days have elapsed. Observations upon donors after giving large amounts of blood constitute the most reliable evidence we have as to how much bleeding is necessary to cause alarming symptoms. An adult needing blood to replenish loss by acute hemorrhage needs at least a pint and probably more, since more than this amount must have been lost. Carrier, Lee and Whipple⁵ have shown that laboratory animals can undergo a loss of twenty-five per cent in blood volume without noticeable ill effects. This is additional proof that enormous amounts of blood are lost before the condition becomes precarious.

It is well known that continued small hemorrhages bring about an extremely low red cell count and low haemoglobin content and still life and more or less activity is possible. Any operative interference in such cases must be preceded by transfusion with liberal quantities of suitable blood or the mortality is high.

All conditions with a bleeding tendency such as purpura, leukemia, cholemia and hemophilia are benefited by transfusion of blood so that the problem is limited to how much to give and when to give it.

In leukemia the hemorrhage is controlled, but of course the malignant nature and eventual outcome of the disease is not changed so that the advisability of proceeding with transfusion is often doubtful. Purpuras are frequently treacherous, and after large quantities of blood have been given with complete cessation of bleeding for a time, a new outbreak of bleeding may follow and death result. Other types of bleeding tendency respond quickly and results are very satisfactory.

Much difference of opinion exists as to whether infectious diseases are uniformly benefited by blood transfusion. It is universally agreed that chronic infections with much secondary anemia are benefited. It seems that the relief of the anemia by new blood enables the body to conquer the infection and that benefit, as a rule, does not

accrue through the addition of protective antibodies. An honest evaluation of results in acute infections is difficult since recovery is the frequent and more common occurrence and the actual influence of transfusion is debatable.

There is serious doubt whether a small transfusion of 200 to 300 cubic centimeters of blood does the patient, if an adult, any appreciable good. The practice of repeating small transfusions on successive days has little to recommend it. The main point in getting good results with transfused blood consists in giving the blood soon enough. This many times means giving the blood before operation rather than after. The all too frequent practice of proceeding with an operation upon a patient suffering from serious loss of blood and leaving word with attendants after the operation is finished to "get someone and transfuse him" certainly must be condemned. Many lives are lost by performing the transfusion when it is too late instead of when it is needed most.

CONCLUSIONS

1. Careful compatibility tests by direct matching of the blood is the safest plan.

2. At least 600 to 800 cc. of blood should be given.

3. Blood should be handled gently and rapidly and should not be kept outside the vessels longer than is absolutely necessary.

4. Whole blood has no disadvantages and the small paraffined tube method of transfusion approximates the ideal more closely than any other method.

5. Blood transfusion should be done early and not late, frequently before, instead of after operation.

REFERENCES

1. Horsley, J. S., Vaughn, W. T. and Dodson, A. L. *Arch. Surg.*, Sept., 1922, 5:301:313
2. Drinker, C. K. and Brittingham, H. *Arch. Int. Med.*, Feb., 1919, 23:133.
3. Guthrie, C. G. and Huck, J. G. *Bulletin Johns Hopkins Hosp.*, Feb., Mar., April, 1923.
4. Clough, P. W. and Clough, M. C. *Southern Med. Jour.*, 14:104, 1921.
5. Carrier, E. B., Lee, F. W. and Whipple, G. H. *American Jour. of Physiology*, June, 1922, 61:138.
6. Sydenstricker, V. P. W., Mason, V. R. and Rivers, T. M. *J. A. M. A.*, 1917, lxviii, p 1677.

DISCUSSION

DR. ELI S. JONES (Hammond): This is an excellent paper and shows the essayist has done a great deal of work on this important subject.

If the sodium citrate method is used it seems best to mix the citrate with the blood as soon as it leaves the needle, the mixing being thorough and without agitation.

But why not use sodium sulphate, which is a better anti-coagulant and not so toxic? Experimentally it has been found by O. A. Brines, Yondell, Henderson, and others that sodium citrate destroys blood platelets; that it develops anticomplimentary properties of the plasma by affecting the blood cells and thus reducing the opsonic and phagocytic power of the blood; that it increases the friability of the red blood cells;

that there are undesirable results for treating severe hemorrhages, and that the hydrogen-ion concentration may not correspond to that of the blood.

The paraffin tube is certainly far superior to the other two methods mentioned by the writer. It requires, however, great skill to properly coat the tubes, and also good assistants. The tips break easily and are difficult to clean. But no method of transfusion which sacrifices the vein is ideal. This, of course, limits the number of transfusions to or from any one individual. The Unger method answers the requirements of the essayist without serious injury to the vein.

It is almost universally agreed that matching recipient and donor's blood is absolutely necessary and that direct matching is safer than typing. After repeated transfusions once compatible blood may become incompatible. Testing before each transfusion is safer.

If it is true that clotting begins as soon as blood is removed from the veins, then the quickest method of transferring blood to the recipient is the best. I particularly wish to emphasize the advisability of giving transfusions in time, before rather than after operation.

DR. HOMER WOOLERY (Bloomington): I would like to ask Doctor Jones to tell us about his case of purpura in which he had recovery.

DR. ELI S. JONES: This case was one of purpura hemorrhagica, which started bleeding from the gum around a tooth, on Saturday. A dentist packed it, but it continued to bleed. I saw the patient on Monday. She was bleeding profusely from the gums. I gave her one cc. per kilo body weight of fibrinogen. In the afternoon she was bleeding worse from several teeth. We gave her Parke-Davis hemostatis serum. The next morning she had several purpuric spots over the body, and in the afternoon began to pass blood in the urine and from the bowels. Wednesday morning she was passing what seemed to be pure blood from kidneys and bowels, was covered with purpuric spots and was bleeding from practically every tooth. We had no paraffin tubes at the time, and owing to the action of citrate on blood platelets we did not think it advisable to use the citrate method. Securing paraffin tubes, transfusion was made Friday morning; she stopped bleeding for twelve hours. Saturday morning we transfused her again, and the bleeding ceased for eighteen hours. Monday morning we started to transfuse her again, the laboratory having reported that the blood of the donor was satisfactory. After fifty cc. of blood she had one of the most terrific reactions I have ever seen. She went into a chill, the rectal temperature went up to 105 degrees, and she was practically in a state of collapse. We discovered that we had used type II instead of type IV. However, after she had these chills for six or eight hours the bleeding stopped, the urine cleared up, and she passed

no more blood from the bowels. She improved rapidly and in a week went home.

This case was a girl fifteen years of age and it was particularly interesting to me because on calling to see Doctor Gatch in regard to the purpura he told me he had seen three cases that had lived as long as forty-eight hours. Doctor Irons said he had seen four cases, and one had lived thirty-two hours. Whether it was from anaphylaxis or whether there was anything in the increase of blood platelets, I do not know.

DR. ELMER FUNKHOUSER (Indianapolis): The first essential of every blood transfusion is that of testing the bloods for compatibility. The method of matching the serum and cells of the recipient against the cells and serum of the donor is unquestionably the safest. Whenever a patient receives blood from the same donor more than once the bloods should be matched each time. This will eliminate the danger of agglutination resulting from the formation of new agglutinins. It will not insure against a reaction, however, as there can be a reaction produced by other things in such a complex substance as the blood.

The selecting of a donor by the grouping of the bloods has been in my experience very satisfactory. Having the sera-groups II and III, which can be secured and preserved at leisure time the test is very simple. A glass slide and a pricking needle are the only pieces of apparatus necessary. The reading is made microscopically. A very definite agglutination and hemolysis, except in group IV, can be observed in thirty seconds to one minute. The technique is so simple that a mistake is almost impossible. The serum must be potent and known not to have deteriorated. Serum hermetically sealed and kept in the ice box will retain its potency for months, probably for a few years. The use of potent group sera is specially indicated in selecting a donor for a child whose agglutinins and agglutinogens are only partially developed in early life.

The method used in doing a blood transfusion is not so important as the manner in which that method is used. No one can deny that unmodified blood, quickly transferred, is the best for the patient. The paraffin tubes that Dr. Little prefers are very satisfactory in accomplishing this result. The method in which sodium citrate is used to prevent coagulation is used by many. It holds a very important place because of its simplicity. A flask, a two-hole rubber stopper, glass connections, rubber tubing and a needle are the necessary apparatus. With a fourteen or sixteen-gauge needle about 100 cc. of blood can be drawn per minute. The sodium citrate is preserved in hermetically sealed tubes. One-fourth to one-half per cent will prevent coagulation. The method is especially recommended as it can be done in the home, where, as a rule, conditions are unfavorable for any complicated operation. It is the method of choice for the donor as the sacrifice of a vein and a remaining scar are un-

necessary. It is contraindicated in transfusing for purpura where the preserved platelets are essential.

I have seen much benefit derived by giving small, frequent transfusions. This is of value in chronic infections and anemia. In chronic infections in which anemia is marked a small amount of blood, 100 to 200 c.c., given every week or ten days, does much to boost the patient. One derives benefit not only from the red cells, but from the blood as a whole.

DR. E. VERNON HAHN (Indianapolis): It has been my thought in hearing discussions of blood transfusion that a man is partial to the method which has proved satisfactory in his own hands. My own preference is for the transfusion of undiluted blood by the method whose merits were so ably set forth by the essayist.

A most important thing is the very precise matching of the bloods, either by grouping or by direct testing. If grouping is done as a preliminary test in order to find a group of probable donors, then I think direct testing of donor against donee should be done as a confirmatory test.

The point I want to bring out is that laboratory workers often rely upon their experiences in reading agglutination reactions without incubation. Recently a case came to my attention where there was an almost fatal reaction following transfusion. The agglutination test was read after the slide had stood a few minutes at room temperature, and the bloods were declared compatible. The slide was then put in an incubator but not observed again until after the operation. After the bad reaction, the slide was examined and agglutination was found. In most cases room temperature is sufficient, but there are exceptions where incubator temperature is required.

In transfusing blood by the paraffin tube method, we should beware of the individual who has acted as donor two or three times previously during a few months' time. The coagulation time of such blood may be so shortened as to seriously handicap the operator.

DR. BERNARD ERDMAN (Indianapolis): The paper is excellent, and the discussion is at least on a par with the paper. I believe that Doctor Funkhouser is right—the most important procedure in this whole thing is the question of what you are going to put into your patient. It is a very easy matter to learn the mechanics of any one of these procedures. In a way I have been unusually fortunate. As long ago as 1909 I saw that master of the fine mechanical details of surgery, Lespinasse, take the blood from a dog to dog and then reverse the procedure and the blood came back again. My interest in blood transfusion has constantly grown since that time. I am sure the crux of the whole situation lies in the question of what you are going to put into your patient. The surgical side is a thing which is left to the discretion and surgical judgment

of the individual who wishes the blood transfused. On the other hand, there are important points left to the man who does the transfusion. This was brought keenly to my attention some time ago when I saw a patient in the hospital, an elderly woman, who had a number of boils. She had a streptococcic infection of some kind. She had a number of large brownish spots distributed over her body. It was discussed very thoroughly as to whether or not the dyscrasia from which she was suffering did not have syphilis as its basis, but her Wassermann, both blood and spinal fluid, was negative. We experienced considerable difficulty in finding a donor for this woman. As a matter of fact she did not belong in any group. Her cells were agglutinated in one, two, three, and in four as well, and on the other hand her serum agglutinated all cells. We were unable to transfuse her.

So far as tubes are concerned, Doctor Little is fair in his discussion of methods. When we first began to do blood transfusion, Doctor Reed and I, we began with the syringe method, and I may say with a becoming modesty that we became very deft in the use of the syringe. We saw to the preparation of the patient and to all of the mechanical details, and we transfused a good many individuals with the syringe method. We then tried the large tube, but did not do so well with that. Then we tried the citrate method. There is everything to say for that method so far as its mechanical advantages go. Anybody who can stick a needle into a vein can carry out the citrate method, and it has the distinct advantage of being done right in front of one with a sharp needle, a piece of rubber tubing, and an ordinary glass funnel.

DR. H. O. MERTZ (Indianapolis): I have never done a transfusion, but I should like to recite a case of a man who had a splenic tumor. He was given repeated transfusions and his appendix, gall-bladder and several teeth were removed during several months preceding his splenectomy. He was much improved under this treatment and his spleen was removed. On the tenth day following splenectomy he became septic, the result of infection at the operative site. He lost strength rapidly and in a few days another transfusion was done, followed by a temporary improvement. He then continued to grow weaker and the transfusion was repeated, and following this second transfusion after the surgery the patient did not secrete a drop of urine. There was no anaphylactic reaction noted, and no other evidence of lack of care in typing the blood. The same donor had been used on three previous occasions.

Because I had been instrumental in referring the patient to the surgeon for the splenectomy I made a perhaps superficial search of the literature to find what influence the transfusion might have had before the sudden development of the anuria. The only experimental work I found as having

any bearing upon the question was that of Asher and Waldstein as referred by Cushing. They say, "Transfusion from a starved animal to a fed one causes diuresis; while that from a fed animal to a starved one fails of such effect," and conclude in the starved animal the kidney is less capable of activity. Cushing further adds that in a transfusion "the excess volume of blood in the vessels is not relieved through the kidneys but by exudation into other organs. That in three or four minutes after the transfusion forty per cent, and in twenty minutes fifty-six per cent of the total volume injected had left the vessels or that almost two-thirds of the injected plasma is lost from the vessels into the tissue at this time, increasing the blood content of proteins which increases the osmotic resistance in the glomerulus, tending to cause a temporary cessation of urinary secretions."

In this instance the donor was a well-nourished individual, the patient emaciated and weak. This reference is mentioned merely as the best explanation found that might account for the untoward action upon the kidneys in this instance. It suggests a field for experimental investigation and if found to be accurate indicates need for further care in the selection of a donor.

DR. G. B. JACKSON (Indianapolis): There is one class of case that I should think was particularly suited to this form of treatment, and that is the case of puerperal sepsis. Inasmuch as the patient has been debilitated for nine months, has undergone the stress of labor and in labor has, as a rule, lost a little more blood than she is prepared to lose, it seems to me this would be suitable treatment. If in addition to this she becomes infected, she is more suited to blood transfusion than the average septic case. Particularly is this so in cases which have become subacute, who are gradually losing ground. We have had rather favorable results in such cases. I think they are especially suited to this form of treatment.

DR. W. D. LITTLE (closing): I think any method of blood transfusion presupposes that one make every honest effort to determine whether the bloods are compatible. There is no doubt but that most people fall into one of the four groups of Moss or Jansky, but there is also absolute proof that some people do not, probably more than we think. In the usual method of testing for compatibility if blood does not fall into one of these groups we throw it out and look for another donor, and make no further effort to find out where it belongs. I think that direct matching is the safest method of determining whether the donor is compatible or not.

The ideal method is that which transfers absolutely unaltered blood. Whatever method is used, the blood should be transferred unchanged.

I think it is dangerous doctrine to believe in anaphylaxis and protein reaction. They are too indefinite. There must be a common cause for

most of these reactions because they occur no matter what type of transfusion is used.

Dr. Jackson spoke of puerperal sepsis. That is one of the most satisfactory conditions to treat after it has gone on to a certain degree of anemia.

Some one has said these tubes are hard to coat. I believe the difficulty is because they are not dry. Paraffin will not stick to wet surfaces. You must have absolute alcohol, which is pretty hard to get now, and remove the last bit of moisture. When the tubes are dry the paraffin will stick and when they are thoroughly coated the blood will not clot. Any one can do blood transfusion by himself if he is familiar with this method. He can do it more easily with assistance. I have talked to many people who use the Unger method, but they discourage me because one must have skilled assistants to help, and altogether it takes a higher degree of skill than the paraffin tube method.

THE COLLOID THYROID

J. W. SNYDER, M.D.
INDIANAPOLIS

The diffuse colloid thyroid is probably the most frequent type of enlargement of the thyroid gland. It is primarily the goitre of youth, unaccompanied by dangerous symptoms and seldom, if ever, requiring surgical treatment.

Development:

The thyroid appears in the third week of embryological development as a bud which forms from the hypoblast in the median line of the floor of the pharynx between the buccal and pharyngeal portions of the developing tongue. The bud grows downward and backward and soon bifurcates in its lower portion. The point of bifurcation forms the isthmus and the two lateral projections go to form the lateral lobes of the mature thyroid. The point in the floor of the mouth from which the bud originates persists as the foramen caecum of the tongue. The intervening stalk disappears except in rare cases, when its persistence results in a thyro-glossal duct sinus or cyst characteristically seen in the median line of the neck. In no mammal does the thyro-glossal duct normally persist and if the thyroid ever possessed an excretory function it has been lost. The connective tissue and blood vessels of the thyroid are derived from the surrounding mesoblast. The parathyroids develop from the third and fourth branchial grooves of each side and come to lie in relation to the posterior capsule of the thyroid.

From the practical standpoint the embryological development of the thyroid interests us especially in its deviations from the normal. The thyroid bud may fail to descend and a lingual thyroid results. Aberrant masses of thyroid tissue may be found at various levels in the neck, most frequently in the region of the hyoid bone. Complete failure of development may produce a thyroidless cretin.

Structure:

Early in foetal development the cells comprising the thyroid are without definite arrangement or occur in the form of acini without a central lumen. At the time of birth the acini have largely acquired a central lumen containing colloid. The cells lining the acini are of cuboidal or low columnar type. An increase in the amount of colloid of a moderate or extreme degree produces a flattening of these cells. When the amount of contained colloid is large the thyroid itself exhibits an enlargement which we characterize as colloid goitre.

Physiology:

An internal secretion has long been associated with the thyroid. It was known that while the thyroid was not essential to life, its absence deprived the individual of those things which made life worth while. Mental and physical sluggishness with pronounced changes in the general appearance of the individual characterized such loss in the grown adult. In the child, faulty physical development and virtual imbecility were present. Both of these conditions could be ameliorated by thyroid feeding.

Kendall in 1914 isolated the hormone of the gland in pure crystalline form (which he named thyroxin) and in 1917 determined its structural chemical formula. Study of this product has shown that it is essentially a catalyst of cellular oxidation. While oxidation can proceed without its presence in the tissues, the rate at which it occurs is less than normal. Such individuals, therefore, have a basal metabolism below the normal standard. The total amount of thyroxin necessary for normal metabolism is small. Fourteen milligrams given intravenously will bring the metabolism of a thyroidless patient to normal. Thyroxin wears out or is destroyed and must be replaced as must other chemical catalysts. The rate at which the thyroid must supply thyroxin to the body is approximately .75 mg. per day.

The nature of colloid itself is still an unsettled question. Boothby regards it as a deposit of an incomplete and possibly a waste inactive by-product of the thyroid, as the result of an inadequate supply of iodine to the gland. Such iodine as is incorporated and stored as colloid may or may not be readily available for the formation of thyroxin. Certain it is that the large colloid thyroid elaborates an adequate amount of thyroxin with difficulty. Plummer has shown that many such patients have a metabolism from eight to eighteen per cent below normal.

Etiology:

Two diverse views have been held as to the causation of endemic goitre of which the colloid goitre is one type. The oldest view held that a deficiency of iodine in the water and food supply was the direct cause. Chatin in 1850 demonstrated that goitre became more frequent among the inhabitants of the highlands of the Pyrenees

and Alps, coincidently with a decrease in the iodine present in the food and water of that region. He postulated that endemic goitre and cretinism could be averted by the continued administration of very small quantities of iodine. These remarkably accurate observations have been repeatedly verified by other observers since that time.

The second view holds that the etiology of endemic goitre is of an infectious nature. McCarrison states, "In villages where goitre prevails, and which are situated one above the other on an unprotected water supply, such as a mountain stream, goitre shows a steady increase in prevalence from above downward, this increase being dependent upon the increased impurity of the water." Marine and Lenhardt have shown a similar increasing prevalence of goitre in fish confined in tanks situated one below the other on a single water supply. Furthermore, the addition of mercuric chloride, arsenic, iodine, or of pure water to the tanks retarded or prevented the occurrence of goitre. Finally, feeding animals on faecal material or cultures from such material has produced goitre.

While these two etiological viewpoints seem far apart, Plummer has suggested an explanation which may harmonize them and show that both factors can enter into the question. He believes that in regions of low available iodine in the food and water supply, even this small amount of iodine may be rendered unavailable to the organism because of its utilization or fixation by certain types of intestinal bacteria. It is interesting to note that McCarrison has recently accepted this hypothesis.

Colloid goitre is in all probability a deficiency disease due to lack of iodine. Colloid enlargement of the thyroid usually appears at the time of puberty. At this time it is termed the adolescent thyroid. Females are more subject to it than males. Without treatment the gland commonly disappears before the twenty-fifth year. In those regions where goitre has a greater prevalence, diffuse colloid goitre occurs more frequently in infancy and childhood. It attains a larger size and shows a tendency to persist for a longer period frequently never returning to normal proportions. Coincidentally with the development of a colloid goitre, adenomatous areas in the gland, probably arising from foetal rests, may undergo hypertrophy. With a decrease in the colloid portion of the thyroid these adenomatous areas may continue to enlarge and produce a further growth of the thyroid but of an entirely different character from the original colloid goitre. It is noteworthy that, should the primary colloid enlargement be prevented by prophylactic measures, the adenomatous areas will likewise fail to hypertrophy and the more serious adenomatous type of goitre may be avoided.

Symptoms and Diagnosis:

Characteristically diffuse colloid goitre exhibits a soft, smooth symmetrical enlargement of the neck. Bruits and thrills may be present over the gland if it is markedly vascular. No toxic symptoms are present. An unpleasant consciousness of the presence of the growth may be complained of by the patient and rarely true pressure symptoms may be noted. The basal metabolism varies from normal to eighteen per cent below normal. (Plummer). Evidences of hypo-thyroidism occur in a few patients with basal rates below normal. Such individuals exhibit a dull facies, slowing of mental processes, a dry skin and lack of energy but none of the extreme changes characteristic of true myxedema. Temporary enlargements of colloid goitre occur under stresses, particularly during menstruation and pregnancy, due to a vascular engorgement.

Colloid goitre frequently is diagnosed and operated upon as exophthalmic goitre, with disappointing results. A neurasthenic state may co-exist with a colloid goitre. Such a patient may be extremely nervous with tachycardia, palpitation, tremor of the hands, extreme weakness and exhaustion with bruits and thrills over the gland. A positive reaction to adrenalin (Goetsch test) may be obtained and to the unwary such a case may pass for exophthalmic goitre. The differentiation, however, is not extremely difficult. Such a patient will show no increased pulse pressure and the systolic pressure will be normal except with an associated hypertension, which is extremely rare at this age. The skin will be cool and the weight normal. The appetite is not increased and no exophthalmos can be demonstrated. The strength, if put to an actual test, will be found to be normal. The pulse, if taken during sleep, will be found normal and, if taken while awake, will exhibit great variations in rate, varying with the mental state of the individual. Lastly, the basal metabolic rate will be found normal or less than normal.

Treatment:

Marine has shown that thirty grains of sodium iodide given to school children in divided doses over a period of two weeks, twice yearly, will largely prevent the development of colloid goitre. Prophylaxis is, of course, the ideal treatment.

In considering the treatment of fully developed goitre, a careful examination of the gland should be made first for the presence of nodules or irregularities of the surface, indicating the co-existence of adenomata. Iodine, as pointed out by Kocher, readily stimulates adenomata to hyperfunction with the production of hyperthyroidism.

In small colloid goitres, iodine in small amounts may be relied upon to effect a cure. In the larger colloid goitres it may not prove effective and in this type five to ten milligrams of thyroxin (given intravenously) or a corresponding dose of desiccated thyroid by mouth may cause the thyroid

to diminish one-third in volume within twenty-four hours with an associated disappearance of bruits and thrills. Subsequent daily oral administration of two to four grains of dessicated thyroid or one and six-tenths milligrams of thyroxin will continue the reduction in the size of the gland. This treatment should be controlled by frequent basal metabolism determinations, the aim being to bring the metabolism to normal or not more than ten per cent above normal. Should adenomata be present unsuspected in the gland, they do not seem to be stimulated to hyperfunction by this treatment so readily as by the administration of iodine.

Lastly, the colloid thyroid is not a surgical thyroid unless the presence of associated adenomata make it so.

BIBLIOGRAPHY

- Boothby, W. M.: Diagnosis and Treatment of the Disease of the Thyroid Gland. *Oxford Medicine*, Vol. 3, Chapter 15, 1921, Part 4, pp. 883-957.
- Chatin: *Compt. rend. Soc. de Biol.*, 1850, Vol. 30, p. 352; Vol. 31, p. 280.
- Goetsch, E.: Newer methods in the diagnosis of thyroid disorders. *New York State Jour. Med.*, 1918, Vol. 18, p. 259.
- Kocher, A.: Diseases of the Thyroid Gland. *Keens Surgery*, Phila., 1908, Vol. 3, p. 336.
- Kendall, E. C.: Isolation in crystalline form of the compound containing iodine which occurs in the thyroid. *Jour. A. M. A.*, 1915, Vol. 64, p. 2042.
- Series of papers on isolation and identification of thyroxin. Collected papers of the Mayo Clinic, Phila., W. B. Saunders Co., 1915, Vol. 7, pp. 393, 422; *ibid.*, 1916, Vol. 8, p. 513; *ibid.*, 1919, Vol. 11, pp. 417-424.
- McCarrison, R.: The etiology of endemic goitre. London, Bale, Sons and Danielson, 1913.
- The thyroid gland in health and disease, New York, Wm. Wood and Co., 1918.
- Simple Goitre., *Brit. Med. Jour.*, London, 1922, Vol. I, p. 636.
- Marine, D and Lenhart, C. H.: Observations and experiments on the so-called thyroid carcinoma of brook-trout and its relation to ordinary goitre. *Bul. No. 7*, March, 1910, Dept. of Fisheries, Comm. of Pennsylvania. Further observations and experiments on the so-called thyroid carcinoma of the brook-trout and its relation to endemic goitre. *Jour. Exper. Med.*, N. Y., 1911, Vol. 13 p. 455.
- Marine, D. and Kimball, O. P.: The prevention of simple goitre in man. *Jour. Lab. and Clin. Med.*, 1917-1918, Vol. 3, pp. 40-48.
- Kimball, O. P., Rogoff, J. M. and Marine, D.: The prevention of simple goitre in man. *Jour. Am. Med. Assn.*, 1919, Vol. 73, pp. 1873-1874.
- Plummer, H. S.: Functions of the normal and abnormal thyroid glands. *Oxford Medicine*, 1921, Vol. 3, pp. 839-873.

TUBERCULOSIS, ITS DIAGNOSIS AND CARE*

F. A. PRIEST, M.D.

MARION

The subject of tuberculosis is of such magnitude from the medical and economic standpoint and, in fact, from every angle and contact, that a paper to be read in the short period allotted will of necessity be only superficial and somewhat rambling, and if what appears to you as vital shall have been omitted, I trust you will realize that this paper cannot cover all the important phases for anything that bears upon this subject in a helpful or educational way is important.

You will prardon me if I appear to digress somewhat from the subject from a strictly medical standpoint, for having had a personal contact in a very close way, I feel the absolute helplessness of trying

to combat the spread of tuberculosis without active and intelligent co-operation of our entire populace. Very few people get the full significance of muzzling dogs until their child has been bitten and then they become ardent propagandists along that line, but be that as it may, tuberculosis is the most destructive of all preventable communicable diseases and is also the most curable of all infectious diseases.

The life of the bacillus of tuberculosis is resistant to such an extent that it lives under conditions that would be destructive to the ordinary infectious organisms, and therefore greater care must be exercised continually to prevent the dissemination of the germs. This can be done only by a thorough system of education and hospitalization.

The people must be taken into the scheme in a larger way and have impressed upon their minds that while tuberculosis is the dreaded monster that they have believed it to be, yet if handled correctly it becomes subject to our will, as a result of an intelligent program carefully carried out. Everyone must learn to know that tuberculosis is communicable and not hereditary. That the period of communicability is most often in early child life, most often before the age of fifteen years, or in the years of non-resistance, and the younger the child the more susceptible under ordinary conditions, and that the popular belief of heredity, borne out apparently by several members of the same family having the disease, is in reality the proof that the disease is one of contact, or long association with those that are tuberculous.

If tuberculosis were hereditary as was long supposed, and is yet by a certain per cent of our people, then the real remedy would be to exterminate those infected.

Children of tuberculous parentage are often more susceptible because of a lowered resistance and frequently contract the diseases in early child life, and it may not be detected until many years later when an acute condition of some ailment causes a "flare-up," and the conflagration is on and the results are usually in proportion to the area of destruction of the onswEEPing army of bacilli with its massed formation of nodules and resultant breaking down processes.

If it were not for the natural body resistance of the healthy individual, everyone would be tuberculous and as it is a large majority do have it at some time in life and do get well.

Tuberculosis is no respecter of rank, but picks its victims from all classes, while the body forces are low, as a result of other diseased conditions, such as influenza, pneumonia, etc., or what is yet more pitiful, while the little body of its innocent victim is weakened by the lack of proper or sufficient food.

It is a blot upon our civilization that every year

*Presented before the Eleventh Councilor District Medical Society at its meeting at Flora, Indiana, May 15, 1924.

thousands of children contract a disease that even proper or sufficient food would prevent by making their little bodies resistant. They get tuberculosis through the starvation route as a result of an economic system that is as merciless as a Shylock or Nero of old; little poorly nourished bodies that will be the carriers of the torch that will disseminate the sparks that will burn up your jewels or scar and mar them until they are only a fraction of what God intended them to be.

The sins of omission are equally as great as the sins of commission, and if we sit complacently by and do not do the things we can to right the conditions that ravage and weaken the bodies of the innocent, we cannot be held blameless when the burning embers fall into our own midst. I speak feelingly upon this phase because I have been made to feel most keenly when I have seen those I cherished infected with this dread disease and knew it was all so unnecessary, had we not been in the past all too willing to leave undone the things our intelligence should have directed us to do.

To have tuberculosis or any communicable or infectious disease in your community is a crime of the community against the individual and the community should be made to pay and so far as possible make restitution for the losses and agonies suffered, the same as they would be made to pay for the carelessness displayed in leaving an open ditch across a road unprotected.

The question then arises, what could we have done and what can we do as medical men to prevent the spread of tuberculosis? I would divide the subject of tuberculosis prevention into the following divisions:

First, education, which should have a program throughout our state and local centers, operating through tuberculosis societies, health clinics, school nurses, welfare societies and nurses and Red Cross and thereby reaching all the people and furnishing them instruction and literature upon the subject, not spasmodically but regularly. Teach them the great importance of keeping their bodies resistant. Teach them the importance of early care and attention to colds, coughs, listlessness and loss of weight and strength and for these conditions get them so educated that they will demand attention instead of tonics and *service* and *advice* instead of adjustments and manipulations. Some of the saddest cases that I have seen have been those that have been getting their backbones aligned (?) for stomach trouble and kindred ailments while the tubercle bacilli were having mass meetings to devise ways and means for a more rapid invasion into the lung tissue of the benighted victims.

Time being one of the most vital elements entering into the equation of recovery, any clap-trap, such as alignments or adjustments or any other form of tomfoolery that would rob the pa-

tient of it, is nothing short of murder, for the sin of omitting to do the right thing even through ignorance will be recorded along with manslaughter in the last analysis, and in the care and education of the tuberculous the people should be warned to shun cults as they would a pestilence. Get impressed upon their minds that the proper disposal of the expectoration is vital and its careless disposal is criminal. Get the co-operation of the public in all sanitary measures and thereby conserve the body against various other invasions and so be resistant to tuberculosis. Have impressed upon the public the value of fresh air in the house and especially in the sleeping room, where it is so often shut out.

These things should be brought constantly to the attention of the public in such a way as to impress them, for it should be and is more important to the community than the eradication of hog cholera.

The second division in tuberculosis prevention would be in regard to the medical man himself, and here I hesitate for fear you might think I am presuming to tell you what to do in regard to this pathological terror, when no doubt your experience is greater than mine. Knowing that you will take what I may say in the spirit in which it is written, I will say that from the standpoint of the medical adviser it is his bounden duty to grasp the situation early. Any patient that comes to you with a rapid pulse rate, a slight afternoon temperature rise, a slight cough, a slight loss of weight, and a listlessness and tiredness should not be passed over lightly, given a tonic and told to come back next week and get some more, without first finding out the underlying cause of these symptoms. Too often they are the first subjective symptoms of a tuberculous invasion, and if the medical adviser does not get the situation well in hand the patient will soon be discouraged and will put himself in the hands of cults that *promise* to get him well with so many adjustments or seances, at so much a month or performance. When the patient gets to that stage or low mark of reasoning he is riding to a fall and is not a long way from the end of the journey.

Tuberculosis today is more readily detected than ever before and yet it is harder to detect because of the earliness demanded in its detection if the patient is to get the consideration he deserves.

When a patient presents himself to the medical man with the symptoms as set out before, namely, increased heart action, slight afternoon temperature rise, slight cough, some loss of weight, with tiredness and loss of strength, it is then the adviser should be on his guard, for any of the symptoms should call for attention and all of them should excite so much suspicion as to call for a very careful examination. In a case that excites suspicion, the adviser should get the full data in

the case, which would be divided into the following divisions: History, inspection, palpation, percussion, auscultation, skiagraphs and x-ray examination, serum reaction, and sputum examination. Each of these divisions is a topic big enough for a long discussion within itself, each is of the greatest importance in arriving at our conclusion (except in the advanced cases where even the layman can see) and while you may think that some one of the divisions is more important than others, it really takes them all to make a complete picture in the early case, and catching the early case is not only a *service* to the individual but is a *service* worth while to the community.

Under history get the patient's account of his first symptoms, what diseases preceded symptoms, whether or not the following symptoms are present: cough, chilling, malaise or fatigue, loss of weight, fever, loss of appetite. Have they been closely associated with others who are or were tuberculous, were they so associated when they were in their babyhood or early life? Notice the word "associated," for the mere fact of having had tuberculosis in the family is assuming less importance every day, unless the patient has had close and somewhat continuous contact and, then, be very careful. Has there been any spitting of blood, even in small amounts, which, excluding bleeding from nose and gums, should at once excite suspicion? Has there been pleurisy with shortness of breath, and especially has there been pleurisy with effusion?

Under inspection, note the pulse rate, temperature, especially the afternoon temperature, weight, height, condition of skin and nails, facial expression, condition of glands of neck, condition of muscles of chest. Note the supraclavicular depression, body position, position of head, position of shoulders, position of clavicle and ribs and the way they elevate on inspiration, position of scapula on inspiration and expiration and whether they assume the position of angel wings. Note the shape of the chest and the alignment of the spine.

With palpation note the condition of glands and muscles and whether or not muscles of the chest on one side lag. Lagging is often noted in the very early cases and the shoulder on the affected side begins to move upward on inspiration later than on the normal side and the chest on the affected side begins to expand a little later than the other side.

There may be other causes of lagging, such as an acute pleurisy, which may have to be excluded before we take the lagging as a probable indication of infection of the lung. Right here let me emphasize: *Never under any circumstances try to examine a suspected tuberculous patient without first having him stripped to the waist*, for it is as absurd to inspect as it is foolish to palpate, and as preposterous to percuss as it is ridiculous

to auscultate through any clothing. He who does it puts himself in the class of the careless, which is worse than the ignorant and closely akin to the criminal, for you may not only be doing the patient an injury, but may injure your own professional standing and so reflect discredit upon the whole medical fraternity. Verily you are your brother's keeper even to his professional standing.

Under palpation note the vibration and resonance caused by voice sounds.

Percussion, like all the other divisions, is a means to an end and by itself may be of little diagnostic value. It is often disappointing, but aligned with the other symptoms may be of great value in locating the lesion upon which our diagnosis depends. Percussion only gives us information as to the density of, or the air content of the lung at the point examined. Percussion may be of vastly more importance in an early diagnosis than auscultation, because the first step in an invasion of phthisis is an infiltration in the mucous membrane of the smaller bronchi and while the tissues are thickened and would give out a different percussion note from normal, yet it might make but little or no appreciable difference in the auscultatory note.

You get the auscultatory note after the infiltration goes through the suppurative stage and breaks through the lining of the bronchi and throws out an exudate and then you have an advanced stage of phthisis, for caseation and softening already have taken place.

Percussion is often disappointing because of faulty technic. A light stroke only should be made or used. The chest is not a bass drum, and quality of note should not be sacrificed to quantity of sound. The heavy stroke causes vibration of the muscles and bony tissue of the chest wall and we get resonance, but it is disseminated and not localized, which is of diagnostic value only. The pleximeter finger should be placed parallel with the rib and in the interspaces. If placed over the rib the whole rib becomes a pleximeter, and again we have a dissemination of sound and no localization. The stroke of the percussing finger (which should always be the second finger and exerted only from the metacarpophalangeal joint) should be so light as to cause a note that is only audible a very short distance in a very quiet room. The pleximeter finger should also be held lightly on the chest, as heavy pressure will cause the intercostal muscles to become rigid and act as a large pleximeter, giving us resonance from distant or healthy tissue and so confusing the local sound note. Never use the pleximeter across the ribs or you will have several pleximeters acting at once. As most or practically all tuberculous lesions of the lung begin in the apex, the percussion should begin from below and travel upward, that you may get the normal note

first and your mind has not become prejudiced to the pathological or abnormal sound.

Percussion should be a comparison, and only when pathological percussion sounds are found in conjunction with the other general signs and symptoms of phthisis, are we warranted in attaching enough significance to the percussion to complete our diagnosis.

Auscultation, like the other divisions, does not stand out alone as a diagnostic aid, but only when the other findings are in keeping with the other symptoms. But you may be pretty sure if you get adventitious sounds above the second rib and above the third dorsal spine that the other findings will be in keeping with a case of phthisis.

Rales above the landmarks just mentioned would be cause at least of a tentative diagnosis of tuberculosis, while he who says that rales at the base of the lung is phthisis should have the burden of the proof on him.

Auscultation, like percussion, being an aid to localization, should be done in such a manner and with the aid of such instruments as not to cover a very large territory at once, and for that reason only a very small bell stethoscope should ever be used. In this connection it might be well to state that a genuine Ford stethoscope meets these requirements admirably. Never under any circumstance use one of these big old-fashioned sound collectors which is large enough to catch all the different sounds from the apex at one time.

Auscultation, like percussion, is very disappointing unless the right technic is used. Have the patient breathe as regularly as usual and if possible breath through the nose, unless there is some deviation of the septum or obstruction of the nasal passage.

The significant or adventitious sound (and remember that we are generally speaking of that area above the second rib and the third dorsal spine) is brought out on inspiration. The patient should exhale about all the air from the lungs and then without inhaling any (this is a matter of instruction) give a little cough and then take a full breath. This formula of "air out, little cough, full breath" is repeated over and over again, the examiner listening carefully (in a quiet room) to the sounds provoked at the beginning of inspiration. If you get the sounds also on expiration you are getting ready for a hard run to keep away from the undertaker, for the case is quite advanced.

You may get adventitious sounds throughout the lungs, and unless it is a case of the very last stage of phthisis you may put the burden of the proof on the one that calls it tuberculosis, but when it is above the landmarks I have several times set out you can almost be sure it is a case of tuberculosis. Asthma, bronchitis, bronchiectasis, bronchial pneumonia and other pathological con-

ditions may cause adventitious sounds throughout the lungs but beware of the abnormal sounds that are limited to the apex, above the second rib and third dorsal spine. Adventitious sounds of the apices and the area below are usually spoken of as rales and are variously classified, depending upon their character and the descriptive powers of the observer.

One of the first rales is the crepitant rale which is noted on inspiration after a light cough and closely resembles twisting the hair over the ear, through the fingers. The rale is caused by the inrushing air tearing the mucous surfaces apart where they have been sticking together. A few deep breaths or hard coughing may dispel them, and they are only significant if they persist and are permanent on frequent subsequent examinations. Care should be taken not to confuse crepitant rales with friction sounds, which are heard during inspiration and expiration, and are more superficial than crepitant rales. Moist rales are, as their name implies, caused by moisture which is caused by the breaking through the mucous lining of the bronchus by caseous degeneration, and throwing the product of the tubercle into the bronchus. These rales are accompanied by more or less bubbling, and vary in accordance to the expectoration or the plugging of the air passages, and when the large bubbling is in areas where there are no large bronchi, they are very significant. In the main, to be significant like the crepitant rales, they must be located in the right area, be persistent, circumscribed, but progressive in scope and remain over many examinations.

Sibilant or sonorous rales are often quite confusing, as they often accompany asthmatic conditions that may also be tuberculous, and when these notes, which vary all the way from whistling to snoring, get to going it is quite difficult to ascertain the underlying cause. If they are in the apex and are not accompanied by crackling, they often indicate a stationary or healing process. Spurious sounds are often detected that are caused by muscles and articulations of ribs with the sternum and care should be exercised that the examiner may not be misled.

The x-ray, like the other diagnostic aids, is of material assistance and when the other symptoms are in keeping with the x-ray findings, or to be more exact, when the x-ray findings corroborate the other symptoms, the diagnosis is more exact, although the x-ray may show an old lesion and it takes the other findings to corroborate the activity of the lesion. The x-ray is one of the most important diagnostic aids and should be used in very early cases of tuberculosis or when in doubt as to the extent of the lesion, but be sure that the interpretation of the plates is made by one that can read them.

The use of O. T. serum is of early diagnostic

value, but should never be injected in those having a temperature above 100 F. One-tenth of one cc. is injected in any location after proper preparation of the part, and if tuberculous the reaction will be in from fifteen to eighteen hours, as indicated by the temperature rise. If there is no reaction, repeat on the third day and double the amount of serum.

Von Pirquet's test is made by scarifying through a drop of O. T. serum on a sterilized surface and if there is a positive reaction, the vesicle or papule will appear within twenty-four hours.

Calmette's test is made by instilling one drop of one per cent solution of O. T. serum in the conjunctival sac, and if the patient is tuberculous there will be a conjunctival inflammation within twenty-four hours.

Moro's test is made by rubbing equal parts of the O. T. serum and hydrated wool fat into the skin, preferably on the chest, or on the breast if the patient is a woman. The reaction is demonstrated by a vesicular eruption at the point of application. In all these tests you only get the information that somewhere in the body you have a tuberculous lesion or condition, but they do not give you information as to the latent or active quality of the same.

The last division under our diagnostic classification, and the one most sure when positive, is the sputum examination. When tubercle bacilli are found, I would say more than once, you may be positive of your diagnosis, but unfortunately for the patient, if you wait until you get this finding you are waiting against the evil day when you have an advanced case to deal with, for as I stated before you do not get these bacilli until after the infiltration of the mucous lining of the air vesicle, and smaller bronchi and caseation and softening has taken place and has broken through into the air passages to be expectorated. So you can see very readily why, when you get this proof of your diagnosis, that you have an advanced case and *don't forget* that it is an advanced case. Do not be satisfied that repeated negative findings mean that the patient does not have tuberculosis if the other evidence is present, but that positive findings clinch your diagnosis of advanced tuberculosis.

Brown says that the five outstanding points in pulmonary tuberculosis are: tubercle bacilli, moderately coarse rales in the area I have already described, paranchymatous x-ray lesion in the same location, a hemorrhage (excluding nose and gums) and a pleurisy with effusion. If you go into the matter you will soon agree with his deductions and findings. At least one or more of these points must be positive before we are warranted in making a positive diagnosis of pulmonary tuberculosis.

Now all this rambling paper would naturally

lead to my third division in the case, namely: prevention of tuberculosis, and that, in my estimation, consists of education, isolation and hospitalization.

By isolation I do not mean to remove the tuberculous afflicted from the haunts of man, but I do mean that until they have become educated in the care of themselves and others they should have some barrier or restraint placed about them that others may not become infected by association with them, and hospitalization for the advanced cases is almost imperative if we ever expect to control the spread of tuberculosis.

This is the point where education by state, community and medical adviser bears fruit, because in just such proportion as the patient or public has been education along these lines, so will they be willing and anxious to co-operate when they become afflicted and thereby protect their kind. The big battle in their own case is accomplished because they demand an early diagnosis of their case and are willing allies to their medical adviser in carrying out the program that is to restore them to their place in the community and to help protect others against the disease.

Among the things the physician will advise his patient will be *rest*, spelled with capital letters, fresh air and sunshine, proper nourishment and as nearly as possible a tranquil mind. By rest is meant complete relaxation, which can only be obtained in bed and should be from fourteen to twenty-four hours per day as indicated by the condition of the patient and the advancement of the disease. While the patient is in bed he should not be allowed to receive company or read but should get complete relaxation and he always should be instructed to rest on the affected side so that the affected side may more nearly be mobilized. In advanced cases where there is a great deal of cough and expectoration the affected side should be mobilized by artificial pneumothorax, which I have found quite beneficial in selected cases. If this is used it should be repeated often enough to keep the lung structure collapsed, which will be from five to ten days and require 300 to 1500 cc. of air.

Under fresh air and sunshine—be like the old woman in the "Hoosier Schoolmaster," who always said "Get a plenty while getting sez I." The room always should be light and cheery, a south and west and east exposure when possible. Never a north exposure unless you can also have an east and west. Sunshine is essential and vital not only upon the sanitary condition of the room but on the patient's state of mind. Take the sunshine away and he gets despondent and does not respond to any treatment. While sunshine is essential the patient should never lay in the direct rays for any length of time or he will get very tired and lose vitality.

If you are treating a patient in a private home

don't be satisfied till you have the lightest, brightest and airiest room in the house. Nothing short of that will suffice.

As to food, give good, well prepared, digestible food and push it, but not to intolerance. Put your faith in milk and raw eggs as a push diet but if milk is pushed don't fail to give calomel twice per week or you will soon get milk intolerance. Keep your patient cheerful and do not allow gabbling visitors that will be able to tell the patient all about the latest patent medicines and cults that quickly affect a cure. I might also add, if you do not think it presumptuous, to be careful you do not lead the patient to believe they can be medicated to health and so neglect the real factors as set out before. The human mind is so constituted that it seems to want to grasp at the short cut and the mysterious, and the cure of phthisis being an open book, they are prone to pass it by on the other side, unless they have received the right ideas along educational lines. The fact that we have about 150,000 deaths from tuberculosis in the United States yearly and about 3,000 here in Indiana leads us to believe that while tuberculosis is curable, we have not yet reached that place where it is in abeyance. Why 3,000 deaths in Indiana each year? It is the lack of proper care and the early grasp of the situation, both of which is lack of education on the part of the public.

A case was referred to me in September, 1923, by Dr. D. Female, 27 years. Married. Temperature 102. Pulse 120. Much emaciated and weighed ninety-two pounds. Only sister and only brother had died of tuberculosis. Tired and weak. Examination revealed moist rales in right apex and slight crepitant rales in left apex, accompanied by cough and expectoration. Patient much depressed on account of brother and sister having died of tuberculosis. These three children had all lived with a grandmother who died of tuberculosis when these children were small. (Note association and results.)

Explained to husband and parents what was necessary to get an arrestment, to all of which they lent their earnest co-operation. A sleeping room with south, east and west exposure was built at once and the patient put to bed twenty-four hours per day. Within ten days the cough subsided, the temperature receded and the patient began to gain in weight and today, thirty weeks after putting patient to bed, she has an apparently arrested case, temperature normal, the cough and rales are gone and she weighs one hundred and thirty-seven pounds and only spending thirteen hours of the twenty-four in bed.

A few months ago I was called to see another girl, only one of the many in like condition, and

oh, how badly she wanted to get well! She knew what was ailing her and had been examined by one of the leading tuberculosis diagnosticians of the state. She wanted to do as told but couldn't. She had too many others to consult and their comfort was to be considered with hers and they were not educated in the care of tuberculosis. An open bedroom off the living room, a northeast corner room, no sunlight and the windows up but a few inches that the living room might not get cold. She knew in a way that these things were not right but she couldn't remedy them. She should have gotten well but she didn't. The cards were stacked against her. Her parents were ignorant and dirty. The state tuberculosis hospital was full and she could not purchase a place in another. Before her people could be educated to care for her she was dead, and yet she was only one of many under similar conditions. If the sacrifice of her life and others like her's would awaken the conscience of the community, that these girls and boys, who should be our greatest assets, could be saved, then they would not have died in vain. Here was a young girl in the very dawn of young womanhood sacrificed for the want of proper care, hospitalization, or a place where she could have been given the essential things she didn't get and which should have been hers as her heritage in this glorious country of ours, a country of plenty, the richest on earth, but yet allows her greatest assets to die when they could so easily be saved; and yet they call us a christian nation because we save our hogs and let our boys and girls be sacrificed to a preventable and a curable disease.

Indiana needs more hospital beds to save her tuberculous citizens and to save others from becoming tuberculous.

Doctors, I have told you nothing new in this paper and yet every day I see advanced cases of tuberculosis that should have had their chance if the disease had been diagnosed early and so in closing let me again call to your attention those cases that come to you with a history of tiredness and slight afternoon chilliness or fever, slight loss of weight and maybe some cough. Many times they come in and tell you that they want a tonic, but don't pass them over lightly. Make a thorough examination of them and if you suspect tuberculosis strip them to the waist and make a real chest examination. If your examination reveals rales above the second rib and the third dorsal spine, or hemorrhage even if slight, or pleurisy with effusion, or tubercle bacilli, or pathological x-ray findings above the second rib and third dorsal spine, give these patients their chance to get well by giving them the right advice and care. Don't send them to Arizona, just to get rid of them, where they will die of lonesomeness, but help them here in Indiana and they will live to call you the salt of the earth.

ARTHRITIS OF THE SPINE*

GRACE LINE HOMMAN, M.D.

LAPORTE

Arthritis of the spine is, I believe, of more common occurrence than is generally thought.

Leri¹ speaks of the great frequency of this condition among the soldiers during the recent war. Most of the men were young. He believed that many of the cases diagnosed as *comptocormias* and considered functional, were really cases of lumbar arthritis.

Epstein², chief of orthopedic clinic at Mt. Sinai Dispensary, St. Mark's Hospital, believes that infectious arthritis of the lumbar spine is a common cause of low back pain. His cases were characterized mostly by their mildness, their ability to walk, by the involvement of the vertebrae and peri-vertebral tissues, by the presence of lateral deviation of the spine and by the absence of sharp angular kyphosis.

In this series of sixteen cases, clinically diagnosed as arthritis of the spine the average age was forty-nine years.

There was a history of strain or injury in 56 per cent. Constipation was a more or less marked symptom in 50 per cent.

Most of the cases showed oral infection in either the teeth or tonsils or both. In three chronic sinusitis was present. One case of arthritis deformans in a woman fifty-seven years old, had an old adhesive peritonitis which may have been the source of infection. One patient gave a history of three neisserian infections. No history of syphilis was obtained in any case. Wassermann tests on two cases were negative. The shortest period of time over which symptoms had persisted was six weeks, the longest twenty-two years.

A number had been diagnosed as "sciatica," "lumbago" and "rheumatism of the hips."

One patient gave a history of having had one or two attacks of "lumbago" every year for the last twenty years.

Radiographs were obtained of twelve cases. Of these eight or 75 per cent, showed lesions of the spine. In six the lumbar region alone was involved; in one, both the lumbar vertebrae and sacro-iliac joints. The entire spine was involved in the other.

Two of the remaining four showed spina bifida occulta. One other showed a developmental anomaly of the fifth lumbar vertebra and the other showed no abnormality.

In six, the arthritis was hypertrophic, in two, atrophic.

Scoliosis was noted in four cases, lordosis in one. One case, in which the radiograph was negative showed scoliosis, and a moderate kyphosis in the lumbar region.

In Cofield's³ study of cases, radiographs of tuberculous spondylitis, disclosed the fact that

bony bridging occurred in one out of ten cases. He advanced the idea that a double infection from the blood stream might cause a hypertrophic and an atrophic form in the same individual. Also, that a lesion close to the periosteum was more likely to be productive of new bone than a lesion further removed from the surface.

In his cases the dorso-lumbar and lumbar vertebrae most frequently showed bridging. He believed that the presence of new bone was not sufficient evidence to rule out tuberculosis.

In my cases the symptoms were much the same. Three had previously taken chiropractic treatment and had been made much worse.

The pain usually came on gradually and was usually located in the lumbo-sacral region and often referred to the abdomen and legs. One patient with involvement of the entire spine, complained of pain in the interscapular region radiating down the arms.

The pain was dull and aching, sometimes sharp, and intermittent in character, being relieved by rest in the prone position. It was aggravated by prolonged sitting, by sudden jars and by automobile riding, especially long rides over rough roads.

In several cases, when the pain was severe, the patients complained of "stomachache," and were nauseated and vomited.

The muscular spasms were noticed more upon attempting to rise from the sitting posture, or at night when muscular relaxation occurred during sleep. The spasms came on gradually and eased gradually when improvement began. As one patient expressed it, at first they were of a rather agreeable stretching sensation. Later they were very severe. When the spasms subsided, usually within a few moments, the patient had absolutely no pain and felt as though there was nothing the matter. I believe, because of the intermittent character of the pain, that it is difficult to impress the seriousness of the condition upon the patient.

In several cases, during the acute stages, there was fever, ranging from 99° to 102°. Disability more or less marked, was present in all cases. Some complained of sensitiveness of the skin of the abdomen and legs.

In making the diagnosis a carefully elicited history is of the utmost importance.

A history of trauma or infection followed in a few weeks or months by more or less persistent backache, sciatica or recurring attacks of lumbago, should direct one's attention to the spine and sacro-iliac regions.

A thorough general examination should be made. Evidences of focal infection should be sought for in the teeth, tonsils, sinuses, genito-urinary organs, appendix, gall bladder and intestines. The lungs should be examined for tuberculous disease. One should note any deformity or limitation of motion of the spine and tenderness over the vertebrae. Tenderness over the

*Presented before the Section on Medicine of the Indiana State Medical Association at the Terre Haute Session, September, 1923.

spinous processes is an infrequent finding in tuberculous conditions. It was a constant finding in all of this series.

Disease of the sacro-iliac joints may simulate disease of the spine, but tenderness over these areas and pain upon lateral pressure of the ilia help differentiate the condition. Examination by rectum may show swelling or fluctuation in the region of the articulations. The x-ray is of great value in the diagnosis.

One is sometimes called upon to differentiate spinal arthritis from more or less acute abdominal conditions.

Raymond and Jacquelin⁴ report a case of chronic gonorrheal disease of the vertebrae which had intense pain in the stomach. In another case of Pott's disease, the symptoms resembled those of gastric ulcer.

The blood should be examined for lues and tests made for neisserian infection. In Leri's cases only one out of twelve examined for syphilitic infection gave a positive Wassermann.

The x-ray is the most important aid in establishing the diagnosis, but a negative report should not be relied upon too implicitly, especially when there is clinical evidence of spinal disease.

I desire to report two cases whose histories will illustrate some of the points which I am endeavoring to make:

Case 1. A young man, twenty-nine years old, for a number of years had been subject to attacks of bronchial asthma which were always induced by a cold.

Seven years before he gave a history of having had rheumatism in the left hip for two months. The patient acknowledged having had three neisserian infections, the last one five years ago.

In March, 1923, he complained of "sciatica" on the left side. At that time he was unable to walk without considerable pain, but the pain eased in a few days and the patient resumed his occupation.

He did not return for four months. He then had great pain attempting to get up from a chair, and said he had never been entirely free from backache for any length of time, since the onset of his illness in March. The pain was gradually getting more severe. Some nights he could not stay in bed, but walked about in order to obtain temporary relief. He was unable to put on his shoes or even to lift objects of light weight. As he expressed it, he "ached from the waist down." He had been having night sweats for the last week and had lost about fifteen pounds in weight during the last four months.

The next day the patient was unable to get out of bed. For three or four days he complained of severe aching pain in the abdomen, which showed boardlike rigidity without distention. The fever ranged from normal or subnormal in the morning, to 102 degree at night. He was nauseated and vomited at intervals for two or three days.

Examination of the blood showed a leucocyte count of 10,500. The differential count showed polymorphonuclears 51 per cent, lymphocytes 48 per cent, basophiles 1 per cent. The Wassermann test was negative. No smears could be obtained to demonstrate gonococci.

Physical examination showed several devitalized teeth. No pus could be expressed from the tonsils. Evidences of chronic ethmoiditis were present.

There was impaired resonance over the right apex, subcrepitant rales in the right infra-clavicular and left interscapular regions.

There was marked rigidity in the lumbo-sacral region, and limited motion in all directions. Tenderness over the last lumbar vertebra and both sacro-iliac joints was marked. There was no deformity.

For several days it was necessary to give opiates for the relief of pain. At the end of the week the patient was quite comfortable.

A radiograph of the lungs showed considerable fibrosis and peri-bronchial thickening, no definite evidence of tuberculosis.

The radiograph of the spine showed a hypertrophic arthritis of the lumbar vertebrae, and an atrophic or destructive arthritis of the sacro-iliac joints.

One roentgenologist thought the condition in the joints was tuberculosis. Two other roentgenologists made no definite statements other than to admit that the pathology was of a destructive type.

It is now two months since he went to bed. He is free from pain, eats and sleeps well and has gained about fifteen pounds in weight.

Case 2. A woman, aged forty. During childhood and early adult life she had had repeated attacks of tonsillitis. The tonsils had been removed ten years before but the patient took cold easily, had sore throat often and many attacks of sinusitis.

She was married at the age of twenty-one years. Her husband had pulmonary tuberculosis. Shortly after marriage the patient developed a periostitis of the left tibia. It gave no trouble until nine years later, following a tonsillectomy, when she had a thrombophlebitis of the left leg. At that time the periosteum became acutely inflamed. It, however, subsided spontaneously.

Six years after the removal of the tonsils, following a maxillary infection, the patient complained of backache which came on slowly but steadily grew worse. At that time she was under the care of an orthopedist, who made a diagnosis of perispondylitis. After five weeks' rest in bed, she made a complete recovery.

Four and one-half years later, while shifting gears on a car, she strained her back and the pain returned. Three months after the injury a radiograph was made of the spine and a "negative"

diagnosis returned. Eight months later the patient was unable to get out of bed. There was pain in the back and legs, marked rigidity in the lumbar region, and a moderate lordosis. But the patient said she had always had a hollow in the small of the back.

The original radiograph was produced and it was then noted that there was some lipping of the articular surfaces of the fourth and fifth lumbar vertebrae. A few months later the condition was worse and there were definite signs of osteo-arthritis of the last lumbar.

Blood Wassermann and complement fixation test for neisserian infection were negative. For about two months there was an evening fever varying from 99.5 degrees to 102 degrees.

After rest in bed and treatment with plaster jackets for about six months the patient gradually resumed her work. But she was never entirely free from symptoms and two years later became so much worse that an Albee operation was performed by another orthopedist, who considered her condition tuberculous. At no time did the patient ever show any signs of a psoas abscess.

Following the Albee operation she was confined to bed for nearly a year and then very gradually allowed up. Throughout these years she had noticed that an attack of sinusitis was always followed by an exaggeration of the back symptoms. She had been examined by several nose and throat specialists, who found no evidence of focal infection in the nose and throat. The patient herself discovered that one tonsil had been incompletely removed. Two years after the Albee operation the stump was removed.

Cultures showed a green producing streptococcus. Animal inoculation was made. A few days later the animal was killed. There were numerous small hemorrhages in the flat muscles and the periosteum on the inner and upper aspect of the left tibia, and a large area of hemorrhage, edema and infiltration on the inner aspect of the left tibia at the junction of the middle and lower thirds. There were no other lesions.

Following removal of the stump of tonsil the periosteal lesion in the left tibia became very tender and a similar sore area appeared in the right tibia. Both were quite painful for about ten days and then gradually subsided.

It certainly seemed as though the tonsils had been the source of the periosteal lesion.

A recent radiograph taken in the antero-posterior and lateral position does not indicate a tuberculous spondylitis. The graft extends from the first to the last lumbar. Some absorption has occurred at the lower end.

The patient still wears a spinal brace and is not entirely free from symptoms. It is possible that the sinuses have been the source of the infection and measures for their correction are being instituted.

When at all possible I believe these patients should be referred to an orthopedist. Few hos-

pitals in the smaller cities and towns are equipped with apparatus for the application of body casts.

But for economic reasons, some patients cannot avail themselves of a specialist's services, and so the general practitioner must treat the case the best he can. At least he can confine the patient in bed for some time after all symptoms have disappeared. The time required may be six weeks or many months, depending upon the response to treatment. It is most important that the bed is firm and even and does not sag. A small pillow in the lumbar region may give support and relieve pain. Whenever possible, a body cast should be applied as soon as the acute symptoms have subsided. A removable cast would allow the patient the combined advantage of fixation and treatment by heliotherapy, which is giving such splendid results in bone lesions.

Opiates are indicated when the pain is severe enough to interfere with sleep, and later, sedatives may be advantageously employed. If the patient is constantly turning in order to get relief, the back is not getting the much needed rest.

I believe that any surgical procedure for the eradication of focal infection should be undertaken before treatment of the spinal disease is begun, unless there is some serious contra-indication. When the patient is feeling better it is difficult to get consent for any operation.

If there is any doubt as to the condition being tuberculous, the case should be treated as such until the diagnosis is definitely determined.

SUMMARY

1. Infectious arthritis of the spine is not of infrequent occurrence.
2. A careful history and thorough examination are of the utmost importance. A radiograph of the spine should be made in all cases of sciatica, repeated attacks of lumbago and more or less persistent backache.
3. It is not always easy to differentiate a pyogenic from a tuberculous lesion.
4. All foci of infection should be removed. Early diagnosis and treatment may mean not only an economic saving to the individual by preventing a long illness and loss of earning power, but may prevent much unnecessary suffering and permanent disability.

BIBLIOGRAPHY

1. Amer. Jour. of Clinical Med., 1923, xxx-103. Leri, Andre. Lumbar Arthritis.
2. Amer. Journal Med. Sci., 1922. Sigmund Epstein, M.D. Infectious Arthritis of the Spine.
3. A.M.A. Oct. 21, 1922. Robert B. Cofield, M.D.
4. Progres Medical, Paris, April 9, 1921. 36, No 15. Gastradiculitis from Pott's Disease. F. Raymond and C. Jacquelin. P. 155.

DISCUSSION

DR. H. J. PIERCE (Terre Haute): We are examining cases of this type every day. They come to us with a history of some slight injury which incapacitates them for manual labor. They are usually directed for x-ray examination by

insurance companies who carry risks for the industries.

Clinical history can usually be obtained of a previous attack of lumbago which disabled the patient, usually several years prior to the present illness or accident. These patients are actually injured and are unfit for work due to a fracture of the new growth which accumulates around the borders of the vertebræ.

There is a question in my mind as to this being the same disease that was known as "railroad spine" a few years ago. I do not mean the malingering, but the true sore spine from a sudden jarring accident.

As to symptoms, I have rayed patients repeatedly for calculus in the ureteral tract. The calculus was never found, but the productive arthritis was very conspicuous. It is not an uncommon thing to have patients referred for a gastro intestinal examination that proves to be negative for gastric findings with the pains referred to the stomach from pressure on the nerves, from the production of new bone around the bodies of the vertebræ. These patients usually have, or have had, diseased tonsils. Occasionally they tell you of a prolonged gonorrhoeal infection with the pain in the back starting about the time the urethral discharge stopped.

DR. GEORGE D. MARSHALL (Kokomo): This is one of the most practical, one of the best and most useful papers that I have ever heard before the State Medical Association. Many things are entirely neglected in the examinations. First, we must have the patients stripped so that we can see the spine and see whether there is rigidity. If rigidity is present find out the cause and then we will not go so far astray. The general symptoms were brought out splendidly in the paper, but I would like to cite an instance or two.

A man who acquired a tuberculous spondylitis in the army came to me for examination, after he had been pronounced neurasthenic, when deformity of the spine was readily visible. He had an erythema over the stomach area, due to spondylitis, and the symptoms were gastric. That often misleads us in these cases. Often the gastrointestinal and nervous symptoms are the most marked of any with which we come in contact. The spinal lesion is only found after intelligent examination.

Another condition is the Charcot spine. Several cases have been reported following inoculation for typhoid during the war. Infection anywhere in the body is likely to cause arthritis. The spine is subject to trauma and several cases of fracture have been found in the army camps. I have had one occur in a man at litter drill.

As to operation, I think one should hesitate because we often do not know where the foci of infection are and if we immobilize the spine in one segment we are apt to get an extension of

the infection into other segments. I think the best orthopedic surgeons are doing very many less Albee operations than heretofore because they have found that the graft is very apt to absorb over the gibbans. There is very likely to be a widening of the sacro-iliac synchondroses in these cases. In the case of a man who fell from a roof, about twenty feet, there was an excursion of the anterior superior spines inward and outward of more than an inch on manipulation. The sacro-iliac was very mobile. Recovery followed the use of a pelvic belt.

DR. A. M. COLE (Indianapolis): Notwithstanding the importance of this subject I do not recall having a paper on the program of this society on this subject during a period of twenty-five years. The disease should be better understood and I am quite sure that the profession is somewhat hazy regarding the whole subject of spondylitis. It is certainly common enough, but we often will have to rule out kidney stones, stomach ulcer and many other conditions that may give the same symptoms. I remember years ago when the x-ray was new that we ran into these bony deformities along the spine caused by spondylitis and we were at first not quite sure what it meant. Many cases were sent to us of suspected kidney stone where we found no stone but did find the bony deformity of spinal spondylitis. The extent of the bony deformities is no index of the pain it may cause. Sometimes we get enormous bony outgrowth and yet the patient may have had no symptoms pointing to this condition. On the other hand, we may have very slight bony outgrowth, sometimes merely a tendency to point, and yet the patient may have severe symptoms referable to this spondylitis. I have no doubt that these mild cases are often overlooked in studying the roentgenogram of the spine. They are overlooked because the bony deformity is so slight. As a rule the more marked the outgrowth of bone, the older the trouble is. In accident cases often the patient will complain of spinal pain and all we can find on our plates is some evidence of spondylitis. This does not always mean that the pain is the result of the spinal condition, as the spinal involvement may antedate the pain many years.

I believe that this condition is always the result of infection and I think the best results can be found only by searching out the source of infection and removing it if possible. Tonsils and teeth, I believe, cause a large per cent of these cases.

I am glad, indeed, to have heard this paper. I think the subject is most timely. From the radiographic standpoint we meet these cases every day and they account for a large per cent of symptoms referable to the spine. I think Dr. Homman's paper is a very complete one and wish to commend it most highly.

DR. CHARLES F. VOYLES (Indianapolis): I

only wish to ask one question. Does an arthritis of this character with bone proliferation explain the condition present and the difficulty we sometimes have in making a lumbar puncture? I can recall several cases in which the patient was in the proper position but it seemed impossible to get in at the proper place and it was necessary to make the puncture one space higher in order to get in at all.

DR. GRACE L. HOMMAN (closing): I cannot

answer the question asked by Dr. Voyles as to whether this condition might interfere with lumbar puncture as I have had no experience in that line, but I see no reason why it could not be the cause of difficulty in getting into the spinal canal.

I also wish to state that the cost of remodeling the little shed, the photograph of which I showed you, was only \$75.00. This shows that these patients can receive treatment at home and need not have the expense of long hospitalization.

EMPIRICISM AND SCIENCE IN MEDICINE

Progress in medicine during recent years has been due in large measure to the efforts of two somewhat distinct groups of workers. One of these includes the clinicians, whose primary interest centers in the care and treatment of the sick. The other group is represented by the so-called laboratory workers—persons engaged in the study of the disciplines fundamental to medicine and sometimes inaptly termed preclinical sciences. In his address as chairman of the Section on Pathology and Physiology at the San Francisco session, Luckhardt lamented the fact that the efforts of these two groups have rarely been concerted. No one can review the history of modern medicine without gaining the conviction that both types of workers have promoted its practice; and it requires no large perspicacity to discern that all of them are important in the advancement of the profession. Hence it was a timely note sounded by Luckhardt when he insisted that the mutual misunderstanding, so prevalent among even the best representatives of both groups, is due to profound ignorance of each other's work. As a rule, he says, the laboratory man has never had an occasion to observe with what care and scientific acumen the good clinician gathers and weighs his data before instituting a rational and effective therapy. The clinician, on the other hand, rarely is in a position to observe and appreciate the resource, patience and pertinacity required of the laboratory man in order to solve a research problem the results of which are subsequently so readily susceptible of practical application.

An illustration of the effect of this reciprocal derogatory attitude appears in the history of cod liver oil as a remedy, recently reviewed by Guy, of Yale University School of Medicine. She points out that Rosenstern wrote in 1910: "Cod liver oil is in the forefront of children's remedies. For long it has been struggling against the skepticism of exact science." This comment deserves to be driven home to those who tend to develop that most reactionary it-can't-be-done attitude. Guy reminds us that in each country the experi-

ence was the same: Cod liver oil was used by the fishing people and peasantry; and then accidentally observed by some physician, tried by him, and so made known generally to the profession. At first, it was used in chronic rheumatism and gout; then, naturally enough, in other bone and joint diseases, notably rickets and osteomalacia (which was considered closely allied to gout); then in scrofula, because of its supposed identity with rickets, and finally in other forms of tuberculosis.

Today, even though we cannot "explain" the action of cod liver oil, its beneficial action in various conditions has been placed on a rational basis. The "healing potency" can be demonstrated by measurable changes under controlled conditions. The results of carefully planned experiments on laboratory animals have been brought to bear on clinical experience, so that one is justified in concluding with Park, Guy and Powers of Yale that, in the presence of calcium or phosphorus starvation, cod liver oil enables the animal to get along as if the calcium or phosphorus were supplied in sufficient or almost sufficient quantity in the diet. Obviously, they say, cod liver oil makes the metabolic processes of the body in respect to these two elements vastly more efficient, even though it does not supply them.

The clinician's observation, long unsupported and even disparaged by the worker in the chemical laboratory, has thus "come into its own." Mental aloofness and a hypercritical attitude have become obliterated in the common belief in established facts. Let us, however, not on that account overexalt empiric methods or undervalue a rigorously critical attitude. The latter has more than once saved us from quackery and charlatanism, from painful error or dangerous overconfidence. The cults always delight to stress the historic incidents of the failures of the scientist to grasp a truth that was subsequently proclaimed far and wide. But even the rankest empiricist is quick to discover a palpable fraud. Metallic tractors, electric belts and even subtle electronic currents are schemes of deception which do not require scientific training and clinical insight, but merely common honesty for their undoing.—*Jour. A. M. A.*, Sept. 8, 1923.

THE JOURNAL of the

Indiana State Medical Association

Devoted to the Interests of the Medical Profession of Indiana

ALBERT E. BULSON, JR., B.S., M.D., F.A.C.S.
Editor and Manager

Office of Publication, 406 W. Berry St., Fort Wayne, Ind.

JULY, 1924

EDITORIALS

THE INDIANAPOLIS SESSION

This year's session of the Indiana State Medical Association will be held in Indianapolis Wednesday, Thursday and Friday, September 24th, 25th and 26th. After consultation with the officers of the sections and with the approval of the Council the scientific committee has decided to deviate somewhat from the plan followed in previous years by combining dry clinics with the scientific papers at the coming session, and in a measure, to have it an "all-star performance." Nothing but minor details remain to complete the arrangements, and this preliminary announcement will give the members of the Association some idea of what is in store for them.

Briefly stated, there will be dry clinics every forenoon and scientific addresses every afternoon of each of the three days of the session. On Wednesday and Thursday forenoons the clinics will be for the Association as a whole, one hour to be given over to the surgeons, another hour to the internists, and a third hour to the eye, ear, nose and throat men. These dry clinics will be conducted by noted clinicians and probably will not be open to discussion, though that is a matter to be decided later. On Wednesday and Thursday afternoons there will be scientific addresses, one hour to be devoted to the surgeons, another to the internists, and a third to the eye, ear, nose and throat men. These addresses will be by noted medical men and will be discussed by medical men appointed for the purpose and with the idea of getting the most out of the subject during the time that is allowed. As at present arranged, Friday will be given over to the sections for individual programs, though in carrying out the main idea the forenoon of Friday will be devoted to dry clinics and the afternoon to scientific addresses. Perhaps on Friday afternoon there will be a combination of one or more sections, but under any circumstances, some of the best speakers will be reserved for that period and the scientific committee desires to serve notice that members are expected to remain over for the Friday afternoon program, which, perhaps, will be one of the best of the entire session.

Among the men who have accepted places on the program and who are known nationally as clinicians and teachers are the following: Evarts A. Graham, St. Louis; Kellogg Speed, Chicago;

Andre Crotti, Columbus; Bransford Lewis, St. Louis; Carl A. Hedblom, Rochester; Major Gabriel Seelig, St. Louis; Allen B. Kanavel, Chicago; Willard D. Haines, Cincinnati; Charles F. Hoover, Cleveland; Frank Smithies, Chicago; Louis G. Heyn, Cincinnati; Walter M. Boothby, Rochester; Alfred Stengel, Philadelphia; James B. Herrick, Chicago; Clyde L. Cummer, Cleveland; Chevalier Jackson, Philadelphia; W. A. Pusey, Chicago; W. J. Mayo, Rochester, and Edward Jackson, Denver.

On Wednesday evening there will be the usual smoker and social evening as guests of the Indianapolis medical profession. On Thursday evening there will be a public meeting, and it is expected that the principal speaker of the evening will be a lay orator of national reputation, and a surgeon who, likewise, has a national reputation as an eloquent speaker. The visiting ladies will be entertained in an appropriate manner by the wives of the members of the Indianapolis medical profession.

It is expected that Indiana doctors will turn out in larger numbers than at any preceding session of the Association, and it likewise is expected that there will be a large attendance from surrounding states, inasmuch as a general invitation will be extended to the medical profession outside of Indiana to attend the session. The September number of THE JOURNAL will contain the completed program and all details concerning the session.

SOCIALISM IN MEDICAL PRACTICE

"Whither are we going?" is a question that well may be asked in connection with the present developing socialistic and communistic tendencies in the practice of medicine. The revolutionary changes that are going on in society, of which medicine is a part, with all of its problems, must be taken into consideration if we are to avoid serious mistakes, and this matter is of sufficient importance to bring forth a note of warning from Dr. W. A. Pusey, who, in his presidential address at the Chicago session of the A. M. A., refers to the present trend from individualism to socialism, and emphasizes the fact that at present there is a tendency to appropriate medicine in the socialization movement; to make the treatment of the sick a function of society as a whole; to take it away from the individual's responsibility and to transfer it to the state; to turn it over to organized movements; and he well says, "If this movement should prevail to its logical limits, medicine would cease to be a liberal profession and would degenerate into a guild of dependent employees."

That this socialistic trend with all of its evils eventually will meet with a reaction is quite true, but the reaction will come only after sad experience and at high cost. Dr. Pusey well illustrates what may happen when he says, "The machinery for all these socialistic and paternalistic enterprises will in time become so large and unwieldy

that it will be impractical and fall to pieces. When, in addition to the ordinary machinery of government, we add the new machinery for running the mines and the railroads and the telegraph, and the telephone and the wireless, for the regulation of capital and industry, for the stabilization of industry, for employment insurance and health insurance, for old age pensions, for socialized recreations and socialized neighborliness, for socialized health education and programs — when on top of these you pile the organizations for keeping the people from using opium and cocaine and alcohol, and doing other things that are not good for them, for enforcing all sorts of laws that prohibit some of the population from doing things that another part thinks are wicked, for socialized nursing and medical care, for taking over obstetrics, child welfare and venereal diseases, for the care of the injured, crippled and defective — when these activities, nearly all of them temporarily good in themselves, have developed to a certain point, the burden will become too great. The men taken from productive occupation and private enterprise that will be required to man them will be such a large proportion of the population that, sooner or later, the social fabric will give away. There will not be enough of the population left for production to take care of the administrators; and a reaction, if not a crash, will come.

"This is no imaginary situation. Attention is constantly being called to it. As Beveridge points out, even now there is one government employee for every twenty-one adults and, according to the National Industrial Conference Board, every eleven workers over sixteen years of age support one government employee. In view of his wise statesmanship, it is not surprising, but it is a reason for encouragement, that President Coolidge has opposed this trend in his definite stand against federal support of such activities."

Pusey then offers a very sane solution of the problem by saying that we should be alert to the socialistic dangers to medicine and aggressively oppose them, and he specifically says that this opposition should refer to the various governmental projects for practicing medicine, and the efforts of organizations, public and private, including medical schools and hospitals, to go into the practice of medicine as a business. These socialistic practices are becoming common, and unless we put a stop to them we will have medical socialism in the United States, a condition that already exists for the medical classes of Europe and is a condition that is neither sufficient nor satisfactory for the public or medical profession. It should be remembered, as Pusey points out, that this government of ours was organized in a spirit of individualism. Given equal opportunity, men were expected to work out their own lives through industry, intelligence and character. Competition exercises its wholesome influence in stimulating men in their worldly efforts.

Social co-operation tends to break down individualism and to encourage the less vigorous to look to society to do for them what it would be good for them to do for themselves. However, it is not for the good of the people of the country that the matter of their physical ills should be taken care of any more than in any other matter they should be given care by the state.

In the discussion of the president's address before the House of Delegates a number of prominent physicians pointed out the dangers of too much free medical service on the part of health officers, nurses, medical men, and organizations of various kinds which attempt to care for those who are sick and injured but always at the expense of the medical profession. The tendency to exploit the medical profession by various social agencies as well as individuals was never so great as it is now, and even the plan for periodic health examination, which had its inception in the medical profession and was proposed as a forward movement in the preservation and prolongation of life, is being used in many parts of the country by so-called health institutes as a means of pecuniary profit at the expense of individual members of the medical profession. Already many large industrial concerns not only are furnishing physical examinations and medical and surgical attention for its employees but agree to furnish such attention for the families of the employees as well. Then there are a number of social organizations that employ physicians at nominal salaries to furnish medical and surgical attention to the members and also their families. A great hospital has been built and wonderfully equipped by a wealthy manufacturer and he employs at nominal salaries the surgeons, internists, laboratory men, nurses and, in fact, every one required to run the hospital, and establishes sort of a health department store where the public can buy its attention much as it would buy shoes or stockings. The dearth of physicians in the rural districts has led to the recommendation that communities as communities or through a committee of representative citizens guarantee a stipulated income for physicians who can be induced to locate in such places, and fixing upon this idea the suggestion has been made that any community can engage in the practice of medicine profitably by erecting and equipping a hospital and employing at fixed salaries physicians and nurses to render the required services to those of the community who may need such attention. The practice of some industrial concerns in furnishing medical and surgical services to employees and their families has led to the proposal of plans whereby the practice of medicine is commercialized, and well-educated and well-trained doctors are exploited through the formation of stock companies that erect and equip hospitals and employ doctors and nurses at stated salaries and the services are sold to the public just as shoes and groceries are sold, and the profit arising therefrom is divided among

the stockholders. It is but a step farther to the adoption of a plan whereby the state assumes the entire responsibility of furnishing medical and surgical services to all who desire to avail themselves of the supposed advantages of such a plan.

This is not idle talk but a frank discussion of what actually is occurring and what it is leading to unless the members of the medical profession, individually and collectively, adopt measures to check the evils, and the president of the American Medical Association has been wise in sounding a note of warning.

In this particular we quote ex-President Wilbur of the American Medical Association, who, before the House of Delegates at the Chicago session said, "We treasure individualism in medicine, and if our high purposes are to be carried out and ideals realized, there must never be bureaucracy in medicine, nor must there be interposed between the physician and those whom he would serve any intermediary whatsoever."

As we see it, the one and only way in which the tendency of the times can be checked is through the action of medical men in refusing to be a party to any form of socialism and communism as applied to the practice of medicine. This means that the doctors individually and collectively must cease to give sanction to the plans of various uplifters which, though ostensibly altruistic, are in reality fraught with danger to the body politic aside from degrading the medical profession by exploitation of its ability and skill in relieving humankind. Individualism in the practice of medicine must be maintained, and in doing this the evils and injustices of the contract system wherein a doctor becomes a mere cog in a machine and punches the time clock like an ordinary industrial employee must be shunned. We also must place the stamp of disapproval upon the misguided efforts of health boards, hospitals and like organizations to socialize the practice of medicine. Medical men everywhere can be counted upon to render service to the indigent and poor without money and without price, but if they are to attain the highest point of efficiency in service to suffering humanity their individualism must be preserved and the rewards for their services protected.

STATE BOARD OF HEALTH POLICIES

Considerable controversy and some misunderstanding has occurred between a few of the members of the medical profession and the Indiana State Board of Health concerning some of the policies of the board. The principal contention is in connection with the practice of the state laboratories in making examinations of specimens without reference to the ability of the patient to pay, thus putting the state into direct competition with all men doing laboratory work and more especially the medical men who limit their practices to laboratory work.

With the intention of arriving at a mutual understanding, a meeting of the State Board of Health with a representative committee of the Indiana State Medical Association and a committee representing the laboratory specialists was held in Indianapolis on June 25th and the various phases of the question thoroughly discussed. It developed at the meeting that the state laboratories have made a great many examinations that by the wildest stretch of imagination could not be considered as having been made for wards of the state or members of the indigent class. On the other hand, the fact was brought out that a large number of medical men, some of them prominent in the medical profession, are guilty of exploiting the state laboratories for their own pecuniary profit, and they have had no hesitation in attaching their names to a misstatement of the facts concerning the ability of patients to pay. In other words while the secretary of the State Board of Health admits that the state laboratories do a great deal of work that should be done by private laboratories and private practitioners of medicine, and that the state laboratories are exploited by the members of the medical profession, he insists that the fault lies with crooked doctors rather than with any policy of the State Board of Health. This is a severe criticism of medical men but is justified when their ideas of ethics and common honesty are perverted, and the facts seemingly prove the charges. During the discussion the further fact was brought out that there are sections of Indiana where the doctors, even members in good standing of county medical societies, are densely ignorant and stupidly obstinate in refusing to put into practice many of the established and approved methods of treating communicable diseases, and the state laboratories offer a means of clinching diagnoses and making it possible for the public to be served through health officers with a fair degree of intelligence in spite of the ignorance of private practitioners of medicine.

That the state laboratories may help to create dependency and loss of self-respect, to say nothing of aiding in the creation of a condition bordering on state medicine, is admitted, but as pointed out by the secretary of the Board, the fault lies with medical men who prostitute the state laboratories to their own ends, for an inflexible rule of the Board is that every specimen received at the laboratories must bear the name of the patient, a statement certifying that the patient is indigent and unable to pay for laboratory services, that the examination is to aid in making a diagnosis, and the signature of the physician attesting the fact must accompany the specimen. Even with all these precautions it can be shown that a large number of doctors, undoubtedly dishonest at heart, not only send in specimens from well-to-do patients with these signed statements attached, but they are crooked enough to charge

the patient for the services that have been rendered gratuitously by the state.

After recounting the difficulties encountered in trying to make a beneficent policy fair to all concerned and not abused by any one, the secretary of the State Board of Health proposes to examine no specimens not accompanied by the patient's name and address, together with the statement that the specimen not only comes from an indigent person but is sent in purely and alone for diagnosis. Following this the patient will receive a notification from the Board of Health that the specimen has been received, examined gratuitously, and the result of the examination given to the family physician from whom the results of the examination should be obtained. It is thought that this will prevent the collection of fees from the patient for laboratory services rendered gratuitously by the state, and the committee of the Indiana State Medical Association offered the suggestion that all records be open for inspection so that the doctors with elastic consciences may be known and if necessary disciplined for their questionable conduct. Furthermore, the secretary of the State Board of Health suggests that reputable private laboratories make it known to the medical men in the surrounding territory that they will furnish containers similar to those furnished by the State Board of Health and approved by the United States Postal Department for mailing, to be used for sending specimens to private laboratories, and that such laboratories will be equipped to do any and all work that now is done by the state laboratories and promise quick reports. In this connection it is of particular interest to get prompt returns upon throat swabs and cultures, Wassermanns, and sputum examinations. In short, the state laboratories have been developed to meet a real need in aiding health officers and others to make diagnoses of communicable diseases, and whenever private laboratories can demonstrate that they are equipped and capable of supplying the need, the state laboratories will cease to function except as may seem necessary to supply deficiencies.

The whole controversy hinged upon a great principle involved, which in reality is that pertaining to the socializing of medicine and making dependents of a class of people who do not deserve and should not have such consideration. That there should have been considerable misinterpretation of the rational policies of the State Board of Health is easily understood and it is deplorable that a large number of medical men are guilty of exploiting the beneficent free service of the state for their own personal financial gain. It is fortunate that the whole matter should have been discussed so thoroughly at the meeting of the representatives of the medical profession and the State Board of Health. Both parties to the controversy need to know the faults of each other, and so far as the medical profession is concerned we hope that measures will be taken to discipline

doctors who are guilty of practices that are not in keeping with honorable medicine.

YES, WE HAVE NO—ETHICS

We have received and are complying with the suggestion contained in a letter which is as follows:

Fort Wayne, Ind.,
June 26, 1924.

Dr. Albert E. Bulson, Jr., Editor Journal of the
Indiana State Medical Association,
Fort Wayne, Ind.

Dear Bulson:

You have fought the good fight. You have stood for "better medical ideals." I am, therefore, sending you the advertising cards of the "Indianapolis Industrial Clinic" and the "Fort Wayne Industrial Clinic" with the suggestion that you publish photographs of these cards together with appropriate comment.

As a matter of fact I do not expect to see my suggestion carried out. The chiefs of these two clinics are probably too prominent in our profession to be criticised openly in *THE JOURNAL*. You and I enjoy their friendship and we respect their professional attainments.

The Fort Wayne advertisement is of recent vintage and I understand that Dr. Duemling has consented to recall his cards. The Indianapolis cards have decorated the toilets and telephones of that city for many months. Dr. E. B. Mumford is a member of the faculty of the State Medical School, naturally, Dean Emerson must approve of this advertising stunt.

I know that the code of medical journalism demands that criticism of advertising quacks must be open and blatant while the criticism of ethical practitioners must be surreptitious. I apologize for calling this matter to your attention.

Yours sincerely,

H. O. BRUGGEMAN, M.D.

"A 24-HOUR SERVICE"

IN CASE OF

ACCIDENT

DAY OR NIGHT—Send the Injured to

The Fort Wayne Industrial Clinic

DUEMLING CLINIC

Corner Home and Fairfield Avenues or

Call { DAY—South 8891
NIGHT—South 6197-6935-J

and a Surgeon will be sent to you

24-Hour X-Ray Service

DR. C. C. GRANDY

DR. J. P. GOODRICH

Fort Wayne Industrial Clinic

DR. L. W. ELSTON

DR. H. A. DUEMLING

"A 24-HOUR SERVICE"

We feel that extended comment is unnecessary. We may ask the question, "Shall we abandon our

"A 24-HOUR SERVICE"

IN CASE OF

ACCIDENT

DAY OR NIGHT—Send the injured to

220 Peoples State Bank Building

134 East Market St. Or

Call CIRCLE 1141

(2 TRUNK LINES)

and a Surgeon will be sent to you

Indianapolis Industrial Clinic

DR. E. B. MUMFORD DR. JEWETT V. REED

"A 24-HOUR SERVICE"

code of ethics and the ordinary rules of propriety which we always have felt are the basis of conduct for men of high ideals and purposes?"

LIQUOR PRESCRIBING

At the Chicago session of the American Medical Association the House of Delegates took another rap at the prohibition question and placed itself on record as favoring more leniency to doctors in enforcing the legal regulations governing the prescribing of alcoholic beverages for patients. The argument was made that doctors should not be questioned as to the number of prescriptions for alcoholic beverages that are written for patients nor concerning the amount of liquor prescribed for any one patient, and a rather heated debate upon the question was participated in by several delegates who are especially interested in the subject. Here in Indiana we have little interest in the matter, for aside from the Federal law governing prohibition we have a state law that is intended to make things as dry as the Sahara desert, and not even a physician can break the drought through prescription or otherwise.

The editor of *THE JOURNAL* was not in favor of the Volstead Act, nor can it be said that he was a "tippler" even though during pre-Volstead days he took a drink occasionally and is not averse to having one occasionally now if he can get one and feel reasonably safe that the drinking of it will

not penalize him by giving him blindness or some other physical disability, but the conviction is forced upon him that prohibition, as poorly as it is enforced, is a good thing for the country. Furthermore, admittedly not a dry advocate, he is not in sympathy with the demand on the part of a certain element in the medical profession that doctors be given the privilege of prescribing alcoholic beverages for their patients with no question asked as to whom those beverages shall be delivered or the amount that shall be prescribed for any individual. If the doctors in Indiana can get along without prescribing alcoholic beverages for their patients certainly the doctors in other states can do likewise, and it is discriminating legislation for the doctors in one state to be permitted to be liquor prescribers and a like privilege prohibited from the doctors in a neighboring state. However, such inequality does exist, and those doctors who are permitted to prescribe alcoholic beverages for their patients should be satisfied with the privilege, even though it is restricted as to the number of prescriptions that should be written as well as to the quantity that is to be prescribed, for when all is said and done the fact remains that the law has dealt liberally with the members of the medical profession in those states where doctors are given legal permission to prescribe alcoholic beverages, and we must admit that it is not an isolated instance when the law is abused.

Frankly speaking, there are many members of the medical profession in states where alcoholic beverages may be prescribed by physicians, where the doctors are nothing more than bootleggers, and if we are going to get anywhere with the prohibition officers or the public in our argument that there is a place for alcoholic beverages in the treatment of disease we must demonstrate beyond a question of doubt that we will help to prosecute any doctor who abuses the privilege to the slightest extent or is using his profession as a cloak for bootlegging. When we prove that we are going to uphold the Volstead Act and its interpretation by the Revenue Office, then and then only can we ask for favors that may seem eminently justified in the name of suffering humanity. Some of us may not believe in the Volstead Act, but it is a law, and as a law it should be enforced. We have a habit of attempting to cover up some of the sins of omission and commission in the medical profession by "white washing" them over with some sort of professional tolerance or ethics, but in doing so we fail to do as much for the medical profession as well as the public as we could do if we played square and devoted a little more attention to the disciplining and punishment of derelicts in our profession.

FEE BILLS

Since the inauguration of the income tax a great many doctors are beginning to find out for the first time in their lives their net amount of yearly

income. Some doctors are learning that despite the fact that they are doing as much work as ever they are obtaining less net income than they did a few years ago. This is because medical men as a class have not kept pace with those in other vocations by charging and collecting more for their services, and which they would be justified in doing because of the rapidly increased cost of living during the past few years. A fee bill for individual communities, with all of the doctors in a given community living up to it seems to be uncommon, and any change in the fees adhered to ten years ago is a rarity. We note that one county medical society in Indiana has adopted what is called a new schedule of fees, in which the charge for city calls is quoted at two dollars and country calls city rate plus fifty cents per mile one way. Obstetrical cases, uncomplicated, are twenty-five dollars, plus fifty cents per mile for cases in the country. These fees are no more and in some instances really less than the fees charged in various towns and cities in Indiana twenty-five years ago when common labor was satisfied with one dollar per day instead of four dollars per day as at present, and the cost of everything else was in proportion. Isn't it about time for the Indiana State Medical Association to take up the question of fees to be charged by its members, and especially the fees that are to be charged in industrial cases which form such a large part of the practice of many doctors?

INDUSTRIAL WORK

Insurance companies are taking an active hand in the attempt to decide who shall and who shall not do industrial medical and surgical work, and the reason for this action has been expressed by the representative of one of the well known insurance companies who says that insurance companies are forced to protect themselves against crooked doctors. This is a serious charge, and yet instances without number can be cited where dishonest reports concerning the nature and extent of industrial injuries have been rendered, and attempts put forth to collect exorbitant and even unearned fees in such cases by attending physicians. It is but natural that in self-defense the insurance companies who pay the bills should attempt to protect themselves, even though they adopt discriminatory measures that do not suit the medical profession as a whole and in fact work a great injustice to many capable and honest young men who might obtain a good deal of industrial work except for the exclusion practices of insurance companies who not infrequently control the question as to whom industrial cases shall be referred. In fact it is the insurance companies that have encouraged the development of "industrial clinics" where department store methods may be employed and where service and

compensation therefor may be under the control of the insurance companies.

It is hoped that the coming legislature will enact a law which gives employees the right to choose their own physicians, and place the question of compensation for professional services rendered on a basis that is fair and in keeping with services rendered and the present economic conditions, but subject to the approval of an industrial board upon which there are representatives of the medical profession. No doubt the insurance companies have been imposed upon by crooked doctors, but, on the other hand, much unjust discrimination has been employed and many capable and conscientious doctors have been imposed upon by insurance companies, so while we are trying to prevent injustices we must remember that there are two sides to the question and act accordingly.

EDITORIAL NOTES

DEAR DOCTOR:

THE JOURNAL and the Cooperative Medical Advertising Bureau of Chicago maintain a Service Department to answer inquiries from you about pharmaceuticals, surgical instruments and other manufactured products, such as soaps, clothing, automobiles, etc., which you may need in your home, office, sanitarium or hospital.

We invite and urge you to use this Service.

It is absolutely FREE to you.

The Cooperative Bureau is equipped with catalogues and price lists of manufacturers, and can supply you information by return mail.

Perhaps you want a certain kind of instrument which is not advertised in THE JOURNAL, and do not know where to secure it; or do not know where to obtain some automobile supplies you need. This Service Bureau will give you the information.

Whenever possible, the goods will be advertised in our pages; but if they are not, we urge you to ask THE JOURNAL about them, or write direct to the Cooperative Medical Advertising Bureau, 535 N. Dearborn St., Chicago, Illinois.

We want THE JOURNAL to serve YOU.

IN Japan the speeches precede the dinner or banquet, which gives reason for the appellation "wise men of the east." Recently we attended some medical banquets where the Japanese practice would have been welcomed if it led to a limitation of garrulousness on the part of "speakers of the evening."

WE desire to remind our public health officials, as pointed out by the *Ohio State Medical Journal*, that the scope of their duty lies in protecting the folks of their community from the wiles of the incompetent, irregular and patent medicine concerns as well as enforcing quarantine and sanitary regulations, and then and then only will there be marked progress in community health.

IN spreading health information to the public it is a good thing to remember that such organizations as the Rotary Clubs, Chambers of Commerce, fraternal organizations, and labor unions are generally open to addresses by men of education, training and official position, and it would be a good thing for the Publicity Departments of our Medical Associations to bear this in mind.

WE believe that we are justified in offering the suggestion that medical bureaus of publicity ought to give the public the facts concerning scientific medicine and its accomplishments, together with information as to how such accomplishments have been brought about through education and training, and thus give laymen the knowledge that will enable them intelligently to assume responsibilities in making a choice between scientific medicine on the one hand and fraud and quackery on the other.

A CHIROPRACTOR in Utica, New York, has been assessed ten thousand dollars damages by a jury in a claim by the plaintiff that her spine was seriously injured as the result of an adjustment. Evidence indicated that severe pain and paralysis followed immediately after the manipulations of the chiropractor. In Wisconsin a supreme court judge has held, in rendering judgment for injury to a tuberculous spine, that a chiropractor should be able to make a diagnosis according to recognized teaching, and that his failure to obtain the approved education and training for making the diagnosis is no excuse.

THERE are a certain number of people in every community who are doing everything they can to discredit scientific medicine. As medical men we have been particularly tolerant of these misguided people and, in fact, not infrequently we have helped along their own game when they have wanted recognition in civic or political positions in which opportunity is offered for doing the medical profession great harm. We are inclined to believe that it is time to stop this kind of aid to those who are opposed to everything which we represent. It is all right to treat our enemies with due courtesy, but there is no reason why we should help them to throw stones at us.

WE never supposed that there was anything that chiropractors did not treat and pretend to cure, but we have just learned from a chiropractor suffering from gonorrhea that his infection, "contracted from bath water," is beyond chiropractic treatment. We have been under the impression that if a customer of a chiropractor was suffering from gonorrhea the argument would be put forth that the little bug that creates so much disturbance had its origin in a subluxated vertebra. Perhaps if a few more chiropractors contract gonorrhea, syphilis, smallpox, typhoid fever, diphtheria, and barber's itch, there will be a rather general admission on the part of chiropractors that "adjustments" are of limited use.

THE wrath of the gods may work slowly, and the medical profession may have progressed at a snail's pace in correcting the notorious faults of its members, but the sentiment expressed at the Chicago session of the A. M. A. indicates that

right soon we are going to hear a loud protest concerning objectionable actions and practices on the part of some erstwhile prominent medical men who, because of their prominence in the medical profession, have been able to have their unprofessional conduct "white washed" or ignored if any one has had the nerve to call attention to their misdeeds. As a matter of fact, isn't it about time that we begin to punish or discipline those in our profession who have transgressed the rules of ethical propriety and decency?

IT is no secret that at the Chicago session of the A. M. A. the House of Delegates took a rap at a well known health institute of New York City that has gone to a good deal of trouble to advertise the fact that it has the endorsement and services of a large number of the most prominent medical men in America, among them being some officers and ex-officers of the American Medical Association, state health commissioners, and many others equally as prominent in the medical profession. As was stated at the Chicago session, it is expected that the medical gentlemen connected with the health institute in question will resign promptly, for it is time to call a halt upon exploitation of the medical profession for gain, as it also is time to put a stop to the interposition of any persons or agencies between physician and patient.

CONSIDERABLE controversy has arisen concerning the reporting of venereal diseases, and in some localities physicians are refusing to report venereal diseases when opportunity is given for more or less publicity of the facts. In this connection it is well to remember that venereal diseases often are contracted innocently, and while it is highly desirable that there should be control of venereal disease in a communicable stage yet there is no sense or justice in submitting a perfectly innocent person to the effects of gossip occasioned by the spreading of information through public health employees or others having access to reports. If venereal diseases are to be reported, it should be by number, with no reference to the identity of the individual, and in that way only can the most complete co-operation on the part of the medical profession be obtained.

A GOOD story is told concerning schemes that are worked to obtain sleeping accommodations in convention towns when the hotels are crowded. A delegate arriving late at night in a convention town where every bed seemed to be occupied finally told the taxicab driver to take him to the hospital where he was entered as a patient desiring an operation for appendicitis. As it was late, the usual formalities of blood examination, urinalysis, and extended examination were postponed until the following morning, when the patient declared that he felt so much better he

thought he would postpone his operation, and called for his bill which, amounting to three dollars, he paid. Later he boasted to his friends that he had a better bed and a better breakfast than he would have had at the hotel where, at convention rates, the guests were paying ten dollars per day.

A SIGNIFICANT feature of the Chicago session of the American Medical Association was the testimonial dinner to Dr. George H. Simmons in honor of his twenty-fifth year as editor of its journal and general manager of the Association. Prominent members of the Association from all over the United States were present, and the speakers not only were leaders of medical thought and action in the profession, but for the most part represented warm personal friends of Dr. Simmons. As was stated at the dinner the event was the greatest tribute ever paid to a medical man in America, and the honor was well bestowed. It is a recognized fact that to Dr. Simmons more than any man in America we owe the growth of the American Medical Association and the development of its Journal, the largest and best in the world, and adherence to the very high ideals and purposes which actuates the Association at the present time.

It is reported that some prominent members of the medical profession are having their laboratory work done gratuitously by the State Board of Health and then charging the patients for it at regular rates. If this allegation is true then there is ample reason for the statement of the Secretary of the State Board of Health that the policies pursued by the Board have the endorsement of some of the prominent members of the profession. While we fully endorse the practice of charging patients for laboratory services when able to pay, and under no consideration do we uphold the policies of the state laboratories in making free examinations for any and all who come for service, yet we cannot uphold the doctor, whoever he may be, who charges for services that are rendered him gratuitously by the state and does it with the distinct purpose of avoiding the legitimate charges that would be made if a private laboratory did the work for him.

WHILE the great life insurance companies for pecuniary reasons are taking an active interest in the question of preventing disease and prolonging human life, yet the subject is one in which the medical profession and the public should be interested, for it certainly is worth while to preserve health and extend human life without a pecuniary reason being the object of such consideration. Therefore, anything that touches the prevention of disease as well as the early discovery of disease helps to conserve health and life. One of the most effective means of accomplishing the desired results is through the periodic health ex-

amination which every individual should undergo at the hands of his or her personal physician, but along with this must go information to the public by health bulletins, popular lectures, books of instruction and articles in lay publications concerning health and how to preserve it. In this connection, *Hygeia* is doing a wonderful work and it should be encouraged by members of the medical profession.

OUR Bureau of Publicity will be of distinct service if, as a result of its influence, it secures the slightest change in the present tendency of lay papers to accept any and all kinds of medical advertising. Newspapers owe a duty to their readers to investigate before permitting themselves to become an aid to harm and suffering, and if they close their advertising columns to medicinal preparations of no therapeutic value and the unwarranted claims of cults the community will be the gainer. Not only should our Bureau of Publicity turn its attention to this matter, but it is a fertile field for those agencies interested in social welfare and public health work. The average newspaper proprietor is amenable to reason, even though primarily he is looking for pecuniary profit, and one of the reasons why he does not clean up his advertising pages, so far as medical advertising is concerned, is because the evils and the harm done by such advertising have not been pointed out to him with sufficient force, or he has not felt the pressure of influence which would demand a change of policy.

ON February 1st several hundred Indiana doctors were delinquent in the payment of their Medical Association dues. Of course if any one of those doctors has a malpractice suit based upon services rendered after February 1st and while delinquent they will not be defended by the State Medical Association, and in consequence they will feel like cursing things blue because they have been so negligent in fulfilling their obligations to their medical societies as well as looking out for their own best interests. Aside from losing the medical defense feature of the Association they also have been losing *THE JOURNAL*. Medical society dues are payable once a year and are called for in December. They are not delinquent until February 1st, and seldom can any reasonable excuse be given by any doctor for not paying the dues within the sixty days during which secretaries are reminding doctors concerning their obligations. We hope that another year will not find the Association adopting drastic methods in order to secure that which it should be a pleasure to pay promptly.

ON June 19th to 21st the National Board of Medical Examiners examined students in class A medical colleges simultaneously in thirty-three cities, among the latter being Indianapolis. The idea of establishing a National Board was to

establish a standard qualifying examination of such character that its certificates of qualifications to practice medicine would be accepted by medical licensing boards in all states and the holders of the certificate to be granted a license to practice without further examination. To date its certificate is accepted by twenty-eight states and some foreign countries. Indiana is not in this list, and we understand that refusal to accept the National Board's certificate is due to legal obstacles or technicalities which can and should be removed. If change of the law governing licensure in Indiana is required, then such change should be made. On the other hand, if it is merely getting an interpretation of the law by the attorney-general then such interpretation should be secured, for Indiana ought to join with the twenty-eight states that accept the certificate of the National Board.

THE man who has constructive ideas, who is forceful and energetic, and exhibits the courage of his convictions is bound to have enemies and meet with a good deal of carping criticism from those who are envious, revengeful because of fancied personal slights, or who have personal ends to serve. This has been demonstrated time and time again during the twenty-five years' service of Dr. George H. Simmons as general manager of the great A. M. A. and editor of its *Journal*. Throughout a stormy career, at times made almost unbearable by malign and vicious attacks from enemies who were not half as anxious to discredit him as they were to discredit the Association he represented, Dr. Simmons has applied himself to the task of building up a great organization and *Journal* representing the noblest and best in medical practice and teaching. How well he succeeded is attested by the great organization and the great *Journal* he now relinquishes, and it must be a source of satisfaction to him, as it should be to all right thinking doctors of the United States, to know that his labors have not been in vain and that in spite of persecution and malignment he has created and leaves a worthy monument to his service.

WE are just a little surprised to note that some of the fraternal organizations are not waking up to the fact that reputable members of the medical profession are either withdrawing from their orders or if not members are showing a disinclination to become identified with such organizations. The reason is not difficult to determine if one considers the tendency on the part of fraternal organizations to take into their folds members of the pseudo-medical cults, quacks and charlatans of every kind who generally have an ambition to secure such recognition. In fact it seems to be easy for most of the medical quacks to obtain admission to fraternal organizations, and still further recognition by election to some high office. It is possible to change this through the

medium of the ballot, for it is a well-known fact that in most fraternal organizations one or at most three black balls are sufficient to prevent admission of any undesirable candidate. The reputable members of the medical profession who belong to secret organizations have in the ballot a means of keeping out members of pseudo-medical cults, quacks, and charlatans, but with the characteristic apathy and indifference of medical men they seldom put forth any effort to help keep fraternal organizations free of undesirables. They therefore have no cause for complaint, if when they enter the portals of the lodge, they are greeted with brotherly affection by the most notorious quack in the vicinity.

IT costs approximately four dollars per day per patient for hospital attention in the federal public health service. In some of the civilian hospitals in the large cities the cost is six dollars per day per patient, and in many of the smaller cities it is known that the cost is not to exceed half this amount though in all probability this is due to lowered standards and lessened amount of equipment. Anyway, it goes to show that maintenance of a good hospital costs money and few if any hospitals are self-supporting. In the average city where the patient is charged forty to fifty dollars per week for hospital service, which does not include any private nursing, the patient gets the idea that the hospital is getting rich on such terms whereas, as a matter of fact, the hospital generally is merely coming out even if all of the rates were alike. With the maintenance of wards and certain rooms for the accommodation of people in moderate circumstances, which never do pay for themselves but always help to create a deficit, the hospitals are always in need of funds. On the other hand, patients who are too proud to be classed among the needy find sickness a great financial drain when the hospital charges forty to fifty dollars per week for services, an extra fifty dollars for a special nurse, and still extra for laboratory fees, and this all before the doctor receives anything for his services. Improvement in hospital service is greatly to be desired, but there ought to be some way by which, through standardization and economies, the cost can be reduced.

IT is difficult for some managers of medical journals to be honest with themselves as well as with their readers. Perhaps it should be expected that the independent or proprietary medical journals, published for profit, will exhibit an elastic conscience in the acceptance of objectionable advertising, but there is no excuse for such a policy on the part of state journals which are expected to be clean and ethical from cover to cover. There are about twenty state journals that, ethically at least, are a credit to the state associations they represent, but there are two or

three state journals that might as well be carrying the advertising of the United Doctors and Lydia Pinkham's Vegetable Compound as some of the advertising they do carry. Just why the state medical associations responsible for the publication of these journals do not adopt a more rigid standard of ethics concerning the acceptance of advertising is explainable only on the ground that no one in authority seems to know what is objectionable as well as unobjectionable in advertising, and do not seem to take the trouble to find out. Perhaps it would be a good thing if the Council on Pharmacy and Chemistry of the A. M. A., or better still the manager of the Co-operative Medical Advertising Bureau at the A. M. A. office, would write an open letter to the state medical associations that are guilty of publishing medical journals carrying objectionable advertising, and tactfully though plainly call attention to the matter. We are under the impression that if the members of a state medical association had their attention called openly to the objectionable advertising that their official journal carries there would be a change of policy or a change of editors and managers. On the other hand, the members of those state medical associations that know that their official publication is above reproach in its advertising policy ought to show their appreciation of the fact by patronizing the ethical advertisers and refusing to patronize all firms whose products have not been approved by the A. M. A. It costs something to be good, as the manager of this JOURNAL can testify after refusing a great many advertising contracts that would prove financially profitable, but every journal owes its readers something in the way of honesty in its business conduct as well as in its editorial policy, and it is high time that those journals that represent the profession should realize that fact.

IN the June number of THE JOURNAL we commented upon the conferring of the honorary degree of doctor of laws upon Dr. Wm. N. Wishard, of Indianapolis, by the Indiana University. Since then Dr. Wishard has been given a testimonial banquet by his former students, professional associates and friends in commemoration of the fiftieth anniversary of his service in the practice of medicine. Several hundred guests were present at the banquet, and the speakers of the evening called particular attention to the splendid service rendered by Dr. Wishard in the interest of everything pertaining to the practice of medicine. As we stated in a former issue of THE JOURNAL Dr. Wishard not only has been one of the most prominent physicians in the middle west and one of the leading genito-urinary surgeons of the country, but he has been identified in an active way in all of the various enterprises with which the medical profession is connected. He is at present and has been for many years a professor in the medical department of Indiana University,

and for twelve years served as a member of the State Board of Health. He is the author of several laws bearing upon public health and medical licensure, and is responsible for the reorganization of the Indiana State Medical Association and the adoption of the progressive ideas which have made the Association as prominent as it is today. He has been honored by being president of the local and state medical associations, the Mississippi Valley Medical Association, the American Urological Association and has been first vice-president of the American Medical Association. He has been chairman of the State Association's committee on Public Policy and Legislation continuously since 1895 with the exception of two years. He is the author of many articles dealing with genito-urinary surgery and has the distinction of presenting an article on "The X-ray in Renal and Ureteral Stone," with illustrations, which appeared on page one, number one, volume one, of this journal. Early in 1890 he performed the first prostatectomy ever performed in Indiana, and probably there had been less than a dozen performed in the United States up to that time. Confreres and students appreciate his influence in raising the standards of medical education and requirements for the practice of medicine in the state, and his adherence to those ethical and professional standards which make for a better medical profession. The dinner given in his honor was, therefore, a tribute to the splendid work that Dr. Wishard has done throughout the entire fifty years of his practice in Indiana. We voice the wish that he may continue in practice even longer than his venerable and beloved father who continued in active medical work for sixty-five years.

DEATHS

JESSE RUCKER, M.D., of Greensburg, died June 12th at the age of 60 years. Dr. Rucker graduated from the Medical College of Ohio, Cincinnati, in 1887.

DAVID A. PETTIGREW, M.D., of Longansport, died June 16th at the age of 73 years. Dr. Pettigrew was a graduate of the Indiana Medical College, Indianapolis, in 1873.

WM. B. DEFFENDALL, M.D., of Washington, was buried June 14th. Dr. Deffendall was 63 years old. He graduated from the Kentucky School of Medicine, Louisville, in 1891.

S. A. MILLIGAN, M.D., died at his home in Gary, June 7th at the age of 41 years. Dr. Milligan was a graduate of the Lincoln Memorial University, Medical Department, at Knoxville, in 1905.

L. W. OLIN, M.D., of Elmdale, died at the home of his daughter, in Wingate, June 9th, at

the age of 73 years. Dr. Olin graduated from the Columbia University College of Physicians and Surgeons, New York, in 1880.

JAMES F. GINN, M.D., of Elwood, died June 10th, at the age of 65 years. Dr. Ginn graduated from the Physio-Medical College of Indiana, Indianapolis, in 1886. He was a member of the Madison County Medical Society, the Indiana State Medical Association and the American Medical Association.

NEWS NOTES AND PERSONALS

Anything in the line of physicians' supplies or equipment may be obtained from advertisers in THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION. Patronize these advertisers, for it means a continuance of their advertising patronage, and the latter means a larger and better Journal for you.

RICHMOND has been selected as the place of the 1925 meeting of the Sixth District Medical Society.

THE Pulaski County Medical Society held a meeting and banquet at Taggart's Hotel, Bass Lake, June 24th.

IT has been announced that the Vanderburgh County Medical Society will hold no meeting during July and August.

THE Grant County Medical Society and the Muncie Academy of Medicine held a joint meeting at Muncie, June 20th.

DR. W. D. HAGGARD, of Nashville, Tennessee, has been chosen president-elect of the American Medical Association for 1925.

ANNOUNCEMENT has been made of the marriage of Dr. G. V. Newcomer and Mrs. Esquiline Short, both of Elwood. The marriage took place in Chicago, June 2nd.

THE Wabash County Medical Society held a meeting at Wabash, June 19th. Dr. J. B. Young presented a paper on "The Periodic Examination of the Apparently Healthy."

DR. ALFRED HENRY, of Indianapolis, was re-elected president of the Marion County Tuberculosis Association at the eleventh annual meeting held in Indianapolis, June 9th.

THE Jay County Medical Society held its regular meeting at the Court House, Portland, June 6th. Dr. Grant Chaney presented a paper on "The Myth of Acute Indigestion."

THE new William S. Major hospital at Shelbyville has been formally opened. The hospital was completed at a cost of \$125,000. Miss Clara M. Widdifield is the superintendent.

DR. FRANK MARTIN, of Bedford, and Miss Harriet Grace Davidson, of Lyons, Indiana, were married June 11th at the bride's home. Dr. and Mrs. Martin will be at home in Bedford, Indiana, after August 1st.

A TESTIMONIAL dinner with the presentation of his portrait was given Dr. George H. Simmons at the Congress Hotel, Chicago, June 9th, by more than four hundred Fellows of the American Medical Association.

THE Kosciusko County Medical Society held its regular monthly meeting at Winona Lake, June 16th. Following dinner papers were presented by Dr. O. H. Richer, on "Pediculosis" and Dr. F. H. House on "Differential Diagnosis of Backpains."

THE regular dinner meeting of the Muncie Academy was held Friday, June 27th at the Hotel Roberts. Dr. N. C. Gilbert, of Chicago, presented a paper on "Angina Pectoris." There will be no more meetings of the Muncie Academy until September.

A BILL prohibiting the importation of crude opium for the manufacture of heroin has been passed and signed by the President. The bill amends the existing law by providing that "no crude opium may be imported or brought in for the purpose of manufacturing heroin."

THE Jasper-Newton County Medical Society held its regular monthly meeting at Rensselaer, June 27th. Dr. H. S. Hewitt presented a paper on "Vitamines, Practical Significance in Diabetes" and Dr. A. P. Ranier presented a paper on "Iron Therapy." Dr. M. D. Gwin was host for this meeting.

THE annual meeting of the American Association of Genito-Urinary Surgeons was held May 26th to 28th at Stockbridge, Massachusetts, at which time the following officers were elected: President, Dr. Arthur L. Chute, Boston; vice-president, Dr. William F. Braasch, Rochester, Minn., and secretary-treasurer, Dr. Henry G. Bugbee, New York City.

A GIFT of \$75,000 has been made to the Indiana University School of Medicine for the endowment of three chairs, by Mr. and Mrs. William Coleman, of Indianapolis, in memory of their daughter, Mrs. Suemma Coleman Atkins. The three chairs endowed are ophthalmology, presided over by Dr. Frank A. Morrison; surgery, presided over by Dr. John H. Oliver; and gynecology, presided over by Dr. Orange G. Pfaff.

FIVE hundred persons attended the open meeting of the Hamilton County Medical Society which was held at Noblesville, June 18th. Dr.

William N. Wishard, of Indianapolis, spoke on "The Value of a Health Inventory"; Dr. Charles H. Bond, of Indianapolis, addressed the meeting, his subject being "An Ounce of Prevention Is Worth a Pound of Cure." Dr. Virgil H. Moon, of Indianapolis, also addressed the meeting.

DR. WM. F. KING, secretary of the State Board of Health, spoke on "Indiana's Crusade for Pure Water" at the "health congress" which was held at Hammond, June 27th and 28th under the auspices of the Hammond Chamber of Commerce. The purpose of the meeting, which was attended by representatives and health officers from more than one hundred cities, was to find a means of sewage disposal for cities in the Calumet river district so that the water of the southern part of Lake Michigan will not be contaminated.

At the annual meeting of the American Laryngological, Rhinological and Otolological Society held in St. Louis, May 29th to 31st, the following officers were elected: President, Dr. Wm. H. Haskin, New York; vice-presidents, Drs. Gordon Berry, Worcester, Mass.; Hugh M. Taylor, Jacksonville, Fla.; George F. Keiper, Lafayette, Indiana; Don A. Vanderhoff, Colorado Springs, Colo., and Edward C. Sewall, San Francisco; secretary, Dr. R. L. Loughran, New York, and treasurer, Dr. E. W. Day, Pittsburgh.

THE Eighth District Medical Society held its annual meeting at Winchester, May 23rd. Officers were elected as follows: Dr. H. W. Gante, Anderson, president; Dr. W. Newcomer, of Elwood, vice-president; and Dr. Charles Watkins, of Farmland, secretary-treasurer. Addresses were presented by Drs. David Ross and Charles Emerson, both of Indianapolis; Dr. W. McKim Marriott, dean of Washington University; Dr. M. A. Austin, of Anderson and Dr. Will Moore, of Muncie. Winchester was selected as the place for the 1925 convention of the society.

In addition to the articles already enumerated, the following have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association:

Abbott Laboratories:

Benzyl Fumarate.

Deshell Laboratories:

Petrolagar.

Petrolagar (Unsweetened).

Petrolagar (with Phenolphthalein).

Petrolagar (Alkaline).

Hoffmann-La Roche Chemical Works:

Digalen-Roche (Cloetta).

Ampules Digalen-Roche (Cloetta), 1.1 Cc.

Tablets Digalen-Roche (Cloetta).

Hypodermic Tablets Digalen-Roche (Cloetta).

Oleo-Bi-Roche.

Ampules Oleo-Bi-Roche, 2 Cc.

Mead, Johnson & Company:

Mead's Cod Liver Oil.

H. A. Metz Laboratories:

Sulpharsphenamine-Metz.

Sulpharsphenamine-Metz, 0.05 Gm. Ampules.

Sulpharsphenamine-Metz, 0.075 Gm. Ampules.

Sulpharsphenamine-Metz, 0.1 Gm. Ampules.

Sulpharsphenamine-Metz, 0.15 Gm. Ampules.

Sulpharsphenamine-Metz, 0.3 Gm. Ampules.

Sulpharsphenamine-Metz, 0.45 Gm. Ampules.

Sulpharsphenamine-Metz, 0.6 Gm. Ampules.

Frederick Stearns & Company:

Insulin-Stearns.

Insulin-Stearns, Single Strength.

Insulin-Stearns, Double Strength.

The following members of the Indiana State Medical Association were registered at the Chicago session of the American Medical Association:

Monday's registration: Drs. Chas. G. Beall, Fort Wayne; H. F. Beckman, Indianapolis; H. L. Bernheimer, Terre Haute; David F. Berry, Indianapolis; William M. Bigger, Hammond; Clyde C. Bitler, New Castle; R. M. Bolman, Fort Wayne; A. A. Bond, Plainfield; George S. Bond, Indianapolis; O. G. Brubaker, North Manchester; William A. Buchanan, Hammond; J. C. Bucher, Wheatfield; Albert E. Bulson, Jr., Fort Wayne; J. C. Burkle, Lafayette; Jasper Cain, Heltonville; Ira Cole, New Richmond; R. E. Cole, Muncie; F. W. Cregor, Indianapolis; M. H. Derian, Gary; Fred C. Dilley, Brazil; Anna B. Durrie, Michigan City; Rilus Eastman, Indianapolis; Metius M. Eckelman, Elkhart; G. G. Eckhart, Marion; Robert H. Egbert, Martinsville; W. A. Fankboner, Marion; O. M. Flack, Boswell; J. C. Fleming, Elkhart; Floyd M. Freeman, Goshen; Austin Funk, Jeffersonville; J. P. Galbreth, Burnettsville; S. A. Gifford, Laurel; M. A. Given, East Chicago; Edward Glaser, Brookville; Wallace S. Grayston, Huntington; John H. Green, North Vernon; Alice Hall-Davis, Hammond; E. O. Harrold, Marion; John Hazelwood, New Albany; Robert M. Hedrick, Gary; Clarence Paul Hinchman, Geneva; Charles F. Hope, Shoals; W. F. Howat, Hammond; B. F. Hoy, Syracuse; William F. Hughes, Indianapolis; William Lloyd Hughes, Indiana Harbor; E. A. Ish, Waterloo; Alfred L. Kane, Fort Wayne; Marie B. Kast, Indianapolis; D. O. Kearby, Indianapolis; George F. Keiper, Lafayette; W. H. Kennedy, Indianapolis; John V. Kerrigan, Michigan City; J. E. King, Richmond; Geo. M. Krieger, Michigan City; Edwin G. Kyte, Indianapolis; Clarence R. LaBier, Terre Haute; Vincent A. Lapenta, Indianapolis; Andrew G. Larson, Lafayette; Eli L. Levin, East Chicago; E. O. Lindenmuth, Indianapolis; W. D. Little, Indianapolis; John M. Lochhead, Indianapolis; H. W. MacDonald, New Castle; George D. Marshall, Kokomo; D. E. Mavity, Fowler; E. B. W. McAllister, Terre Haute; J. L. McBride, Wecca; R. E. McIndoo, Kokomo; Anna I. McKany, New Albany; Doris Meister, Anderson; Frank Henry Mervis, Indiana Harbor; J. H. Wm. Meyer, LaPorte; D. L. Miller, Goshen; Albert M. Mitchell, Terre Haute; William J. Molloy, Muncie; Wm. F. Molt, Indianapolis; James J. Moorhead, Terre Haute; Samuel P. Morgan, New Carlisle; O. B. Nesbit, Gary; L. T. Ostrowski, Indiana Harbor; H. C. Parker, Gary; Lars Elree Pennington, Logansport; Veronica Murphy Pennington, Logansport; C. C. Rayl, Decatur; O. H. Richer, Warsaw; Juan Rodriguez, Fort Wayne; Aaron G. Rogers, Parker; Charles J. Rothschild, Fort Wayne; E. Ray Royer, Brownsburg; C. W. Rutherford, Indianapolis; Jacob Schlesinger, Hammond; Ada E. Schweitzer, Indianapolis; Chas. L. Seitz, Evansville; Will Shimer, Indianapolis; Morrell Simpson, Bedford; E. D. Skeen,

Gary; J. A. Snapp, Goshen; Irvin H. Sonne, Corydon; Geo. W. Spohn, Elkhart; Charles Stoltz, South Bend; Wallie Moser Stout, New Castle; Christ M. Stoycoff, Gary; E. Strickland, Indianapolis; John M. Taylor, Indianapolis; A. M. Teixler, East Chicago; F. W. Terflinger, Logansport; O. P. Terry, Lafayette; V. L. Turley, Galveston; Arthur L. Walters, Indianapolis; Wm. D. Weis, Hammond; R. O. Wharton, Gary; Theodore F. Wood, Angola; J. A. Work, Elkhart; J. William Wright, Indianapolis, and Charles Wyeth, Terre Haute.

Tuesday's registration: Drs. H. R. Allen, Indianapolis; G. W. Anglin, Warsaw; Samuel W. Baer, South Bend; Clay A. Ball, Muncie; I. J. Becknell, Goshen; F. W. Black, Ligonier; John T. Black, Indianapolis; L. A. Bolling, Lafayette; George D. Balsbaugh, North Manchester; John C. Boone, South Bend; Charles S. Bosenbury, South Bend; Harry Boyd-Snee, South Bend; James S. Boyers, Decatur; James W. Brunker, Riley; William C. Caldwell, Evansville; Earle B. Call, Knightstown; Don Franklin Cameron, Fort Wayne; Willis W. Carey, Fort Wayne; Ralph S. Chappell, Indianapolis; Stanley A. Clark, South Bend; Charles N. Combs, Terre Haute; P. B. Combs, Evansville; Thomas T. Cotter, Indiana Harbor; Thos. E. Courtney, Indianapolis; James A. Craig, Gary; Chas. C. Crampton, Delphi; George V. Cring, Portland; Earl J. Cripe, North Manchester; Joe R. Crowder, Sullivan; J. H. DeWitt, Valparaiso; F. M. Dickason, Bluffton; J. E. Doerr, Mt. Vernon; Frank R. Doll, Whiting; Thomas J. Dugan, Indianapolis; Thomas C. Eley, Plymouth; Chas. P. Emerson, Indianapolis; Olga Pickman Feinberg, Gary; Frank B. Fisk, Indianapolis; Elmer Funkhouser, Indianapolis; A. P. F. Gammack, South Bend; H. E. Gowland, Valparaiso; Arthur E. Guedel, Indianapolis; F. L. Hade, Bridgeport; C. A. Hartley, Evansville; A. M. Hayden, Evansville; William C. Heilman, New Castle; Harry W. Helmen, South Bend; J. M. Hicks, Huntington; C. Norman Howard, Warsaw; W. F. Howat, Hammond; J. E. Hughes, Indianapolis; M. F. Johnston, Richmond; Wm. R. Johnston, Charlottesville; Thom. M. Jones, Anderson; George H. Kamman, Seymour; Herman H. Kamman, Columbus; T. C. Kennedy, Indianapolis; Edgar F. Kiser, Indianapolis; H. C. Knapp, Huntingburg; August Knoefel, Terre Haute; O. A. Kopp, Anderson; B. F. Kuhn, Elkhart; W. C. Landis, Elkhart; Harry K. Langdon, Indianapolis; Bernard J. Larkin, Indianapolis; Charles E. Linton, Medaryville; Harry W. Long, Gary; Marcus Ward Lyon, Jr., South Bend; Martha Brewer Lyon, South Bend; James B. Maple, Sullivan; H. H. Martin, LaPorte; Neal Matlock, Medora; J. E. McArdle, Fort Wayne; Horace N. McKee, Elkhart; C. A. McVey, Hammond; Orris O. Melton, Hammond; George D. Miller, Logansport; William H. Miller, Terre Haute; H. F. Mitchell, South Bend; Virgil H. Moon, Indianapolis; Herman G. Morgan, Indianapolis; Judson D. Moschelle, Indianapolis; Arvine E. Mzingo, Indianapolis; Lillian B. Mueller, Indianapolis; Clarence W. Mullikin, Ridgeville; G. A. Nafe, Indianapolis; A. S. Newell, Converse; J. D. Oliver, Indianapolis; Lyman Overshiner, Columbus; W. B. Page, Goshen; J. B. Porter, Elkhart; I. J. Propper, Gary; Lyman T. Rawles, Fort Wayne; Horace G. Read, Tipton; William C. Reed, Bloomington; J. O. Ritchey, Indianapolis; C. L. Ritter, Gosport; Alex A. Ross, East Chicago; K. R. Ruddell, Indianapolis; H. C. Ruddick, Evansville; Ernest Rupel, Indianapolis; Leslie C. Sammons, Shelbyville; Wm. J. Sandy, Martinsville; Frank E. Sayers, Terre Haute; O. T. Scamhorn, Pittsboro; Foss Schenck, Indianapolis; H. O. Shafer, Rochester; I. Wright Short, Elkhart; Joseph E. Showalter, Waterloo; Harvey W. Sigmund; Crawfordsville; C. L. Slonaker, Culver; Hubert N. Smith, Brooksville; Lester A. Smith, Indianapolis; W. F. Smith, Huntington; L. E. Somers, Decatur; Victor J. Sprauer, Plainville; Walter A. Stauffer, Elkhart; Walter C. Stephens, Muncie; P. N. Sutherland, Angola; C. C. Terry, South Bend; B. F. Teters, Middlebury; B. M.

Turbow, Indiana Harbor; Howard K. Turner, Monticello; E. M. Van Buskirk, Fort Wayne; Budd Van Sweringen, Fort Wayne; Robt. W. Viehe, Evansville; George H. Warne, Tipton; Philip Warter, Evansville; John Henry Warvel, Indianapolis; F. M. Wells, Jeffersonville; Hugh J. White, Hammond; Luther Williams, Indianapolis; W. H. Williams, Dale; Charles O. Wiltfong, Chesterton; Perry Woolery, Heltonville; M. G. Yocum, Mentone, and J. R. Yung, Terre Haute.

Wednesday's registration: Drs. R. B. Acker, South Bend; C. L. Amick, Wakarusa; E. E. Ash, Goshen; John F. Barnhill, Indianapolis; M. E. Beverland, Indianapolis; H. V. Blosser, Fort Wayne; Robley D. Blount, Valparaiso; B. J. Bolka, South Bend; E. R. Borley, South Bend; H. C. Bowers, Elkhart; Whitefield Bowers, Michigan City; H. Philip Bowser, Goshen; John L. Bradfield, Logansport; H. D. Brickley, Bluffton; Harry Lewis Brooks, Michigan City; Maurice Buchsbaum, Gary; Elizabeth Burns, Decatur; Raymond A. Butler, Beech Grove; John W. Carmack, Indianapolis; T. E. Carneal, Winamac; L. D. Carter, Indianapolis; W. B. Christophel, Mishawaka; George E. Clements, Crawfordsville; W. R. Cleaveland, Evansville; Wm. F. Clevenger, Indianapolis; C. J. Cook, Indianapolis; George M. Cook, Hammond; Hugh A. Cowing, Muncie; Kenneth L. Craft, Indianapolis; C. H. Crews, Hammond; Frank S. Crockett, Lafayette; F. S. Cuthbert, Kokomo; E. O. Daniels, Marion; S. C. Darroch, Cayuga; Merrill S. Davis, Marion; Franklin C. Dielman, Fulton; J. Frank Dinnen, Fort Wayne; G. R. Douglas, Valparaiso; J. H. Eberwein, Indianapolis; B. W. Egan, Logansport; Charles H. Emery, Bedford; Edward E. Evans, Gary; James H. Faugher, LaPorte; Harry L. Foreman, Indianapolis; W. H. Foreman, Indianapolis; D. H. Forsyth, Terre Haute; John Harvey Foster, Michigan City; F. W. Foxworthy, Indianapolis; C. A. Gardner, Kendallville; John D. Garrett, Indianapolis; H. E. Glock, Fort Wayne; Alois B. Graham, Indianapolis; Edmund C. Hack, Hammond; F. E. Hagie, Richmond; Robt. C. Hamilton, Indiana Harbor; T. H. Harrell, Evansville; W. O. Hildebrand, Topeka; J. W. Hill, South Bend; R. R. Hippensteel, Indianapolis; Robert Val Hoffman, South Bend; W. A. Hollis, Hartford City; Jerome Earl Holman, Indianapolis; Carroll C. Hyde, South Bend; John W. Iddings, Lowell; Harry C. Johnson, Logansport; Thomas A. Kearns, Flora; Aimee R. Killough, Michigan City; George W. Kimball, LaPorte; A. J. Kimmel, Hudson; B. R. Kirklín, Muncie; Frank S. Kitson, North Manchester; F. J. Kleinman, Hebron; Nicholas A. Kremer, Madison; Andrew G. Larson, Lafayette; Caroline C. Lawrence, Gary; Byron N. Lingeman, Crawfordsville; Ralph B. Lingeman, Indianapolis; A. L. Loop, Crawfordsville; Floyd A. Loop, Lafayette; Donald MacGregor, Indianapolis; Ivan J. Markel, Elkhart; Ernest L. Mattox, Terre Haute; P. E. McCown, Indianapolis; A. C. McDonald, Warsaw; Walter C. McFadden, Shelbyville; Adah McMahon, Lafayette; Frank W. Merritt, Gary; Hugh M. Miller, South Bend; S. T. Miller, Elkhart; Raymond E. Mitchell, Indianapolis; Lindsey Morrison, Hammond; H. Y. Mullin, Rockfield; C. E. Munk, Kendallville; Edgar H. Myers, South Bend; O. C. Neier, Indianapolis; T. W. Oberlin, Hammond; Thos. A. Olney, South Bend; Frank M. Patton, Elkhart; Allen Pierson, Spencer; Ulysses G. Poland, Muncie; Nettie B. Powell, Marion; J. R. Pugh, Hammond; D. S. Quickef, Anderson; M. E. Rafacz, Whiting; Jewett V. Reed, Indianapolis; Thos. F. Reitz, Evansville; W. H. Rietz, Evansville; H. H. Rogers, Anderson; Jesse B. Rogers, Michigan City; Floyd T. Romberger, Lafayette; Maurice I. Rosenthal, Fort Wayne; David Ross, Indianapolis; L. K. Ryan, Gary; C. E. Savery, South Bend; E. L. Schaible, Gary; Russel P. Schuler, Kokomo; Oliver V. Schuman, Columbia City; Louis H. Segar, Indianapolis; R. L. Sensenich, South Bend; L. O. Sholty, Wabash; W. Bert Siders, Warsaw; John T. Short, Fort Wayne; L. Siebenmorgen, Terre Haute; Emery F. Small, Decker; Thos. F. Spink, Washington; Orville E.

Spurgeon, Muncie; Harold A. St. John, Fort Wayne; Walter C. Stephens, Muncie; A. E. Stinson, Athens; John Swanson, Fort Wayne; O. H. Swantusch, Angola; John T. Take, Gary; Homer H. Tallman, Culver; B. M. Taylor, Portland; Merrel H. Taylor, Macy; B. J. Terrell, Indianapolis; C. B. Thomas, Plainfield; Walter N. Thompson, Sullivan; Wm. S. Tomlin, Indianapolis; I. N. Trent, Muncie; Geo. H. Van Kirk, Kentland; Earl Van Reed, Lafayette; Grover L. Verplank, Gary; C. F. Voyles, Indianapolis; W. F. Waller, Angola; Wm. G. Wegner, South Bend; Roy Elmer Whitehead, Indianapolis; Frank E. Wiedemann, Terre Haute; Franklin T. Wilcox, LaPorte; W. E. Wilken, South Whitley; Harvey Williamson, Marion; Le Roy A. Wilson, Michigan City; Matthew Winters, Indianapolis; Jonathan P. Wolf, Evansville; James A. Wynn, Indianapolis, and James B. Young, Indianapolis.

Thursday's registration: Drs. F. R. Bannon, Kokomo; Donald A. Bartley, Indianapolis; Robert N. Bills, Gary; Frank A. Brayton, Indianapolis; John R. Brayton, Indianapolis; Eugene L. Bulson, Fort Wayne; F. R. Nicholas Carter, South Bend; J. V. Cassidy, South Bend; Harry L. Cooper, South Bend; H. M. Crow, South Bend; H. W. Eby, Goshen; H. M. English, Gary; M. A. Farver, Middlebury; G. J. Geisler, South Bend; B. B. Griffith, Vincennes; E. H. Griswold, Peru; L. P. Harshman, Fort Wayne; Wm. N. Keith, Whiting; M. K. Kreider, Goshen; Hugh A. Kuhn, Hammond; H. K. Lemon, Goshen; C. G. Mackey, Culver; Francis A. Malmstone, Griffith; F. V. Martin, Michigan City; Will J. Martin, Kokomo; Hubert D. McCormick, Vincennes; P. E. McCown, Indianapolis; Robert B. McKeeman, Fort Wayne; Milo K. Miller, South Bend; W. E. Nichols, Hammond; R. O. Ostrowski, Hammond; Earl Palmer, Logansport; Robt. R. Pollom, Darlington; F. E. Radcliffe, Bourbon; J. E. Rarick, Wolcottville; E. L. H. Recher, Morocco; H. M. Rhorer, Kokomo; H. O. R. Royster, Frankfort; Charles Ryan, Kokomo; Wm. I. Scott, Kokomo; M. Maywood Sears, Elkhart; Herbert M. Senseny, Fort Wayne; L. H. Simmons, Goshen; Lewis E. Stephenson, Gary; G. H. Stoner, Valparaiso; G. K. Throckmorton, Lafayette; P. C. Traver, South Bend; C. C. Wert, Covington; James L. Wilson, South Bend; John E. Yarling, Peru, and A. C. Yoder, Goshen.

ABSTRACTS

CHANCER IN A JUVENILE WITH GENERAL PARALYSIS DURING ANTISYPHILITIC TREATMENT

A case of superinfection with syphilis is recorded by Clyde E. Shinkle, Cincinnati (*Journal A. M. A.*, May 31, 1924). A boy, aged 16, had a sore on the penis. The boy's mother was known to have syphilis during his infancy. He was always slow mentally, but had been worse the last two years. Recently, he had prayed a good deal, and had stated that he had religion and that he was to save the world. He heard voices and asserted that he at times saw God. He sat quietly about the ward, occasionally grimacing and listening to voices. When accosted, he answered questions in a stammering (not a slurring) speech. He readily admitted sexual irregularity. His intelligence was almost nil. Occasionally, he held bizarre poses into which he had been put. The penis showed a ragged dirty sore, as big as a nickel, involving the prepuce and the sulcus. At one end of this sore was a hard red nodule, the size of a large pea. The laboratory findings proved previously existing syphilis, the syphilitic character of this nodule and the existence at present of general paralysis. Intermittent antisiphilic treatment was well carried out. The condition changed little under treatment. The blood Wassermann reaction was positive. The Wassermann reaction of the spinal fluid was positive; globulin was in-

creased; there were from 17 to 27 cells to each cubic millimeter. The gold curve was in the general paralytic zone. Dark field examination showed *Spirochaeta pallida* in the nodule of the sore on the penis. This case corresponds well with those reported in the literature as cases of superinfection or reinfection of patients with syphilis. This case was one of proved chancre in a juvenile patient with proved general paralysis during antisiphilic treatment.

SPEECH DEFECTS

In 1915, a speech defect clinic was opened at the University of California medical department under the auspices of the pediatric department. Every kind of speech defect, from the simplest type—that of poor enunciation, in cases sponsored by interested teachers—to the most difficult, i. e., the nervous type, has been referred to the clinic. The different speech defects have been classified as follows: 1. The nervous speech disorders—stammering, stuttering, cluttering and nervous hesitation. 2. Retarded speech in both normal and subnormal children. 3. Infantile substitutions not caused by mouth malformations. 4. Substitution of sounds or imperfect speech caused by malformations of the speech organs. 5. Voice defects, not organic. 6. Voice defects after certain operations, such as cleft palate or adenoid. 7. Imperfect speech through partial deafness. 8. Aphasia, sensory or motor. 9. Foreign substitution of speech sounds, caused by foreign environment. 10. Sluggish enunciation due to poor muscular coordination, which may possibly have been caused by certain diseases of childhood. They are discussed at length by Mabel Farrington Gifford, San Francisco (*Journal A. M. A.*, May 24, 1924), especially with reference to treatment. Gifford advises against waiting for the child to outgrow the defect. Nothing, she says, is more harmful than this waiting. The older the child grows, the more established and the firmer rooted does the speech defect habit become. If it is of a mechanical nature, early surgical interference is advisable—nothing is gained by waiting. Only when the cases are light ones, caused by imitation, or when the increasing mental development of the child enables him to see and to correct his own mistakes, are the defects "outgrown." Waiting has another harmful angle. Any nervous speech disorder, if allowed to continue, has a destructive effect on the patient's morale. He becomes a warped, self-conscious and negative individual, full of fears. At times these fears are repressed, causing neuroses. All of these nervous speech disorders are curable if attacked in the right way by the right instructor. Their origin is psychologic, and psychologic reeducation is their solution.

THE RELATION OF ANAPHYLACTIC DISTURBANCES TO ARTHRITIS

The importance of food allergy in the production of arthritis is stressed by John A. Turnbull, Boston (*Journal A. M. A.*, May 31, 1924). Of three cases cited, the fact that two out of three family histories revealed relatives affected with arthritis, Turnbull accepts as evidence in favor of a hereditary tendency to this affection, which corresponds to the findings made in family histories of patients suffering from such anaphylactic disturbances as hay-fever or angioneurotic edema. It is urged that if no original focus can be demonstrated in the organism, cutaneous tests should be applied to determine what sensitizing proteins are being ingested in the diet which can be held accountable for the existing arthritis. The elimination of such offending articles of food from the dietary in the cases cited has been followed by the prompt remission of symptoms, and failure to adhere to the dietary limitations has immediately reproduced the conditions that had been abolished by the avoidance of such sensitizing foods.

LEAD POISONING IN CHILDREN

Two cases of lead poisoning in children are reported by John C. Ruddock, Los Angeles (*Journal A. M. A.*, May 24, 1924). In one case the child had gnawed off every bit of paint on porch railings, window sills, crib, bureau, chairs and even white enameled door casings, as high as it could reach. The other child had gnawed the paint from the crib and the window sills, and had an uncontrollable desire to chew any painted object. Ruddock emphasizes that pica is one of the most important etiologic factors in lead poisoning in children. There are many mild cases of lead poisoning in children, manifested by spasms or colic, the true nature of which are never suspected. Energetic prophylactic measures should be employed with children who habitually eat painted articles. The feces and the urine should be examined for lead in all children with convulsions in which the etiologic factor is not clear.

THE CARDIAC DISTURBANCES ASSOCIATED WITH DISEASES OF THE THYROID GLAND

Most of the cardiac abnormalities produced by thyroid disease occur in those toxic states in which there is an elevation of the basal metabolic rate. So far as the disturbances of the cardiovascular system are concerned, there is little difference between typical exophthalmic goiter and so-called "adenoma with hyperthyroidism." In discussing the cardiac aspects of these conditions, Frank N. Wilson, Ann Arbor, Mich. (*Journal A. M. A.*, May 31, 1924), distinguishes between primary disturbances of the heart and secondary disturbances of the heart. Under the former heading, he includes those cardiac symptoms and signs which occur invariably, or almost invariably, in severe cases of thyrotoxicosis, and which may be considered, therefore, cardinal manifestations of thyroid intoxication. Under the second heading, on the other hand, he includes those cardiac abnormalities which, because of their relative infrequency, or because their frequency and intensity do not vary directly with the intensity of the other symptoms of the primary disease, may properly be looked on as complications. Of the primary disturbances of the heart, sinus tachycardia and the evidences of overactivity of the heart associated with it are the most common. Of the cardiac complications of thyrotoxicosis, enlargement of the heart is one of the most important. Clinical evidence of myocardial changes in toxic goiter is by no means rare. Death resulting purely from the cardiac complications of toxic goiter is relatively uncommon. It is true that, in so-called postoperative thyroid shock, auricular fibrillation, with extreme ventricular tachycardia and indications of cardiovascular collapse, are seen; but necropsies in such cases usually show severe degenerative changes in the liver and other parenchymatous organs, indicating death from profound toxemia. It is probable that death results in such instances from overwhelming intoxication, in which the heart suffers along with the other vital organs. Milder grades of cardiac weakness are not infrequent, and should be treated exactly as under other circumstances, by rest; morphin when necessary to relieve dyspnea or insure complete rest and sleep; digitalis in amounts sufficient to produce its characteristic effects, and a proper diet. The diet should be designed to meet the caloric requirements, or, perhaps, for the first few days, to fall somewhat below them; it should contain only sufficient protein to prevent a negative nitrogen balance, and should be poor in salt. As to whether adenomatous goiter without hyperthyroidism may damage the heart, it is difficult to form an opinion. Nevertheless, it is clear that a persistent enlargement of the thyroid gland, even though it be regarded as nontoxic at the time of the examination, is at least a potential menace to the myocardium.

TRUTH ABOUT MEDICINES

NEW AND NONOFFICIAL REMEDIES

NEUTRAL ACRIFLAVINE-ABBOTT, 0.1 GM. AMPULES.—Each ampule contains 0.1 Gm. neutral acriflavine-Abbott (see New and Nonofficial Remedies, 1924, p. 24). The Abbott Laboratories, Chicago.

INSULIN-STEARN'S.—A brand of insulin. For a discussion of the actions, uses and dosage, see New and Nonofficial Remedies, 1924, p. 149. Insulin-Stearns is marketed: insulin-Stearns, single strength (5 Cc. vials containing 10 units in each Cc.) and insulin-Stearns, double strength (5 Cc. vials containing 20 units in each Cc.) Frederick Stearns and Co., Detroit.

DIGALEN-ROCHE (CLOETTA).—A sterile solution containing in each Cc. 0.3 Mg. of an active derivative of digitalis as isolated by Cloetta, containing 7.5 per cent. of alcohol. The actions and uses of digalen-Roche (Cloetta) are the same as those of digitalis. The average dose is from 1 to 2 Cc. (15 to 30 minims). The maximum daily dosage is 6 Cc. (90 minims). Digalen-Roche (Cloetta) is also suitable for intramuscular and intravenous injection. Intravenous injections of 1 Cc. (15 minims) may be repeated at intervals of one-half to one hour as necessary. Digalen-Roche (Cloetta) is also marketed as follows: ampules digalen-Roche (Cloetta), 1.1 Cc.; tablets digalen-Roche (Cloetta) (equivalent to digalen-Roche (Cloetta) 0.5 Cc.); hypodermic tablets digalen-Roche (Cloetta) (equivalent to digalen-Roche (Cloetta), 1 Cc.) The Hoffmann-La Roche Chemical Works, New York. (*Jour. A. M. A.*, June 14, 1924, p. 1937).

PETROLAGAR.—A mixture composed of liquid petrolatum 65 Cc., agar 10 Gm., sugar and flavoring 2 Gm., sodium benzoate 0.1 Gm., water to make 100 Cc. Petrolagar has the actions of liquid petrolatum. It is claimed that the emulsification of the liquid petrolatum increases its efficiency, and that the agar adds soft bulk and tends to increase peristalsis. The average dose of petrolagar is 15 Cc. morning and night. Petrolagar is also marketed in the form of petrolagar (unsweetened), containing no sugar, petrolagar (with phenolphthalein), containing 0.33 Gm. phenolphthalein per 100 Cc., petrolagar (alkaline), containing milk of magnesia 25 Cc. per 100 Cc. The Deshell Laboratories, Inc., Los Angeles. (*Jour. A. M. A.*, June 28, 1924, p. 2119).

PROPAGANDA FOR REFORM

CHIOLOGOGUES.—As early as 1868, a British committee appointed to investigate the subject arrived at the conclusion that mild mercurous chlorid (calomel), mercuric chlorid and taraxacum—all reputed chioalogues—do not increase the flow of bile but probably act on the bile expelling apparatus. Recently the latest experimental procedure was applied to judge the status of a number of substances that have at various times been alleged to influence bile flow. With the exception of bile salts, negative results only were obtained with such substances as calomel and salicylates. All dependable evidence warrants the recommendation that clinicians consider the advisability of abandoning therapeutic efforts to "stimulate" the liver through the use of substances having alleged chioalogic effects. (*Jour. A. M. A.*, June 7, 1924, p. 1867).

GLY-SO-ODONATE.—A few months ago the Council on Pharmacy and Chemistry published a report on an alleged bactericide "Gly-So-Iodonate." The product is put on the market by a company whose name is much more imposing than its importance warrants—"The National Medical Research Laboratories" of Milwaukee, earlier known as the "Wisconsin Medical Laboratories." Charles E. Hutchings, who claims to be a "medical man," seems to have been the prime mover in putting

"Gly-So-Iodonate" on the market. Hutchings, in letters, has stated that he is a "graduate of Kings College of London" and has claimed that he is a "member of Marquette Medical College." However, an inquiry directed to Kings College of London brought the reply that they had no record of a man of this name on the medical register. The Marquette University School of Medicine seems to be equally ignorant of Hutchings' connection with that institution. After the Council's report had been published, the National Medical Research Laboratories sent broadcast a six-page circular, three pages of which were devoted to what purported to be a "Partial List of Representative Industries Protecting Their Many Thousands of Employees from Infection With G-S-I." As it seemed reasonable to suppose that a concern which published a misleading formula for its product would be quite as likely to publish misleading references for the value of its product, some of the "representative industries" listed by the exploiters of "G-S-I" were written to. From the replies which were received, it seems evident that the basis for at least some of the references published by the exploiters of Gly-So-Iodonate rests on as flimsy a foundation as the alleged formula of the stuff and the educational claims of Charles E. Hutchings. (*Jour. A. M. A.*, June 7, 1924, p. 1881).

WHITTINGTON'S CONSUMPTION CURE A FRAUD.—The postal authorities have closed the mails to Frederick Graham and the Tuberculosis Home Remedy Company by the issuance of a fraud order. The Whittington "Cure" was the subject of a report in The Journal of the American Medical Association in 1916; analysis in the A. M. A. Chemical Laboratory at that time showed it to be a flavored syrup devoid of any potent ingredients except alcohol. The evidence brought out in the hearing by the Post Office authorities showed that the preparation was claimed to contain sugar, glycerin, alcohol and the extract matter from *pyrus malus folia* (apple leaves), gentian root, *rhamnus purshiana* (cascara) and licorice root. Analyses in the Bureau of Chemistry of the Department of Agriculture indicated the absence of gentian and the presence of only traces of cascara and licorice. No evidence was submitted to show how apple leaves had come to be hit upon as a "cure" for tuberculosis. (*Jour. A. M. A.*, June 14, 1924, p. 1983).

EXPLOITING THE CANCER SUFFERER.—The week of the annual session of the American Medical Association was chosen as a propitious time to resurrect two discredited cancer cures. A Philadelphia paper announced that the cause of cancer had been discovered and that a treatment had been evolved which was producing remarkable results. The publicity dealt with the alleged cancer serum of T. J. Glover of Toronto. This received some attention in 1921, but was not shown to be of value. The second "cancer cure" to be resurrected was that of Dr. Wm. F. Koch of Detroit. Koch's nostrum was brought to the attention of the newspapers of the country by one C. Everett Field. It received some attention in 1921, and was reported on unfavorably. The new publicity given to these two discredited "cures" is producing the usual effect. Sufferers from cancer both directly and through their physicians are frantically trying to learn whether there is any warrant for the claims so widely broadcast. (*Jour. A. M. A.*, June 21, 1924, p. 2054).

ATUSSIN, PEPTOPROTEASI, PARAGANGLINA VASSALE, FOSFOPLASMINA, ASMONGANGLINA AND ENDO-OVARINA TABLETS NOT ACCEPTED FOR N. N. R.—These products are manufactured in Italy and sold in the United States by the Neother Products Co., New York. Atussin is claimed to be a suprarenal preparation; Peptoproteasi, a gastric ferment preparation; Paraganlina Vassale, a suprarenal product; Fosfoplasmina, an egg yolk extract; Asmoganglina, an extract of the suprarenal and hypophysis, and Endo-Ovarina Tablets, an ovary preparation. In each case the statements made in regard to composi-

tion were indefinite and the therapeutic claims unwarranted. The booklet which the Neother Products Co. uses as advertising for these products, consists of 151 pages, presents a jumble of fact and fancy, and reads more like a patent medicine almanac than a scientific treatise. The Council on Pharmacy and Chemistry found Atussin, Peptoproteasi, Paraganlina Vassale, Fosfoplasmina, Asmoganglina and Endo-Ovarina Tablets unacceptable because, (1) Their composition is indefinite or semisecret, (2) The therapeutic claims are unwarranted and (3) Their recognition would be the means of advertising proprietary products which are not accepted. (*Jour. A. M. A.*, June 21, 1924, p. 2068).

DOSE OF THYROID FOR CHILDREN.—Thyroid effects are generally obtained by the administration of Dried Thyroid U. S. P. (Thyroideum Siccum). There is, however, no fixed dose of thyroid for children. The amount of dried thyroid to be administered must be determined in each case. A safe initial dose for a child three years of age would probably be 0.015 Gm. of dried thyroids two or three times a day. The best way is to start with a small dose and to gradually increase it until either satisfactory improvement or symptoms of intolerance manifest themselves. As soon as the desired effects are obtained or symptoms of intolerance manifest themselves, the dosage must be reduced. (*Jour. A. M. A.*, June 21, 1924, p. 2070).

THERAPEUTIC LAMPS.—The Kromayer water-cooled mercury-quartz light and the Burdick and Hanovia mercury-quartz lights are considered sources of ultraviolet radiation of strong intensity, emitting a large quantity of long and short ultraviolet wave lengths. In contrast to this, carbon arc lamps, of which the ultra-sun lamp is an example, are used more particularly for the rays present similar to those in the spectrum of sunlight; namely, the invisible heat rays, the visible rays and the longer ultraviolet rays. The nonburning feature of the ultra-sun lamp is due to the practical absence or very weak intensity of the short ultraviolet rays which are the wave lengths that irritate and easily produce an erythema. The advertisers of the ultra-sun lamp stress the fact that the spectrum of their lamps is a continuous one, whereas the spectrum of the mercury-quartz light has gaps. No one has yet proved, however, that the presence of gaps in a spectrum is a drawback in the clinical use of that light. Furthermore, no one has proved that the burning or erythema-producing rays of the mercury-quartz lights are disadvantageous. It cannot be said that the carbonarc lamp is less valuable than the mercury quartz lamp for certain diseases. The exact indications for the different sources of light have not been worked out. (*Jour. A. M. A.*, June 28, 1924, p. 2138).

VEHICLES FOR PRESCRIPTIONS.—The following is a list of vehicles that can be used to prepare pleasant tasting mixtures: Aqueous Elixir of Glycyrrhiza N. F., Compound Elixir of Cardamom N. F., Compound Elixir of Almond N. F., Compound Elixir of Vanillin N. F., Glycerinated Elixir of Gentian N. F., Elixir of Anise N. F., Red Aromatic Elixir N. F., and Compound Syrup of Asarum N. F. The formulas of these preparations may be found in the Epitome of the U. S. Pharmacopeia and National Formulary, published by the American Medical Association. (*Jour. A. M. A.*, June 28, 1924, p. 2138).

BOOK REVIEWS

DISEASES OF THE SKIN. (New 9th Edition). By Henry W. Stelwagon, M.D. Ninth Edition revised with the assistance of Henry K. Gaskill, M.D., attending Dermatologist to the Philadelphia General Hospital. 1313 pages with 401 Text Illustrations and Half-tone Plates. Cloth, \$10.00. Philadelphia and London: W. B. Saunders Company, 1921.

(Continued on Adv. Page xx)

DOCTOR, WHEN YOU WANT A **Reliable aid to digestion**

Specify Elixir of Enzymes, a palatable combination of ferments that act in acid medium.

Also one of the best vehicles for iodides, bromides, salicylates and other disturbers.

Elixir of Enzymes is dependable in disorders easily controlled if taken in time, but serious when neglected.

Pituitary Liquid

is the premier preparation of the Posterior Pituitary.

Standardized

1 c. c. ampoules Surgical

½ c. c. ampoules
Obstetrical



Suprarenalin Solution 1:1000

*Astringent, hemostatic
and heart stimulant*

Splendid keeping qualities
1 oz. g. s. bottles

ARMOUR AND COMPANY
CHICAGO

WALLACE-SOMERVILLE SANITARIUM

Succeeding the Pettey & Wallace Sanitarium

MEMPHIS, TENN.

WALTER R. WALLACE, M.D.
WILLIAM G. SOMERVILLE, M.D.

FOR THE TREATMENT OF

**DRUG ADDICTIONS, ALCOHOLISM
MENTAL AND NERVOUS DISEASES**

Located in the Eastern suburbs of the city.
Sixteen acres of beautiful grounds.
All equipment for care of patients admitted.



Louisville Neuropathic Sanatorium

INCORPORATED

1412 South Sixth Street, Louisville, Kentucky

An ethical institution with modern equipment for the care and treatment of Mental and Nervous Diseases. Situated in residence portion of the city, yet quiet and retired. Rates furnished upon request.

W. E. GARDNER, A.B., M.D.
Medical Director

W. E. BENDER, M.D.
Resident Physician



BOOK REVIEWS

(Continued from Page 238)

The misfortune of the death of Dr. Stelwagon in the midst of the work of revision for this edition of his well-known treatise added tremendous burdens to the task of his collaborator, Dr. Gaskill. But that nothing has been left undone to maintain the reputation of the treatise as one of the very best in its line, is patent to the most casual reader when he opens this new volume. While it was necessary to conserve space for new material, by eliminating much of the older descriptions, yet progress in dermatology has latterly been keeping pace with the other fields of medicine, and this volume represents a faithful and full portrayal of such progress. Several rare conditions are described in this last edition and seventy-four new illustrations have been added.

HUMOR AND PATHOS OF OBSTETRICS. By H. D. Fair, M.D. Published by the Scott Printing Company, Muncie, Indiana. Cloth. 200 pages.

One of the active and progressive members of our Association has put out this little two-hundred-page book which is not only what its title indicates but offers many helpful suggestions by one having a long experience in obstetrical work. Every doctor and especially those just beginning practice will find the book of interest and probably can profit by some of the comments that have been made.

NEW AND NONOFFICIAL REMEDIES, 1924, containing descriptions of articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1923. Cloth. Price, postpaid, \$1.50. Pp. 422+XXXIX. Chicago: American Medical Association, 1924.

Every physician is continually bombarded with literature, scientific and otherwise, concerning the newer remedies. He has neither the time nor the opportunity to investigate all even of the more promising preparations, and obviously he cannot try them upon his patients without investigation. He must know the composition of the article, must know that the claims under which it is marketed are true; in other words, he must have some critical statement of the actions, uses and dosage as well as of the chemical and physical nature of the product.

This need of the physician is met in *New and Nonofficial Remedies*, which is the official publication through which the Council on Pharmacy and Chemistry annually presents to the American medical profession disinterested, critical information about the proprietary preparations which the Council deems worthy of recognition. In ad-

dition to the description of these proprietary preparations, the book treats those nonofficial remedies which, in the opinion of the Council, are worthy of consideration.

As the book is designed for ready reference, each preparation is classified, and each classification is preceded by a general and critical discussion of that group. These articles are written by those who may speak with authority on the separate subjects, and are a compilation of the best accepted opinions of today. Thus there is a general article on lactic acid-producing organisms in which the newly accepted *Bacillus acidophilus* preparations are discussed in connection with other accepted sour or fermented milk preparations. The animal organ preparations, the biologic preparations, the arsenic preparations, and so on, are discussed in such a manner as to make the accepted facts concerning each group readily available.

A glance at the preface of the new volume will show that the book has been extensively revised. In fact, each new edition of *New and Nonofficial Remedies* is essentially a newly written book, fully indexed.

Physicians who wish to know why a given proprietary is not described in *New and Nonofficial Remedies* will find the *Reference to Proprietary and Unofficial Articles* not found in N. N. R. of much value. In this chapter (in the back of the book), there are references to published articles dealing with preparations which have not been accepted.

New and Nonofficial Remedies is a book that a physician who prescribes drugs cannot afford to be without. The book contains information about medicinal products which cannot be found in any other publication.

The book will be sent postpaid by the American Medical Association, 535 North Dearborn Street, Chicago, on receipt of one dollar and fifty cents.

THIRTEEN TO ONE

Judge—"Prisoner, the jury finds you guilty."

Prisoner—"That's all right, Judge, I know you're too intelligent to be influenced by what it says."—*Jester.*

THE ETERNAL FEMINE

A little girl had been bothering her mother all day with questions. Finally the mother said, "Mary, do you know that curiosity once killed a cat?" "Well, Mother," asked Mary, "what did the cat want to know?"

Indiana State Medical Association

(Continued from Page 238)

ENTERTAINMENT COMMITTEE—John R. Newcomb, Indianapolis, Chairman; A. L. Marshall, Indianapolis; Ernest Rupel, Indianapolis; John Sluss, Indianapolis.

FINANCE COMMITTEE—Alfred Henry, Indianapolis, Chairman; Harry Langdon, Indianapolis; E. E. Padgett, Indianapolis; W. W. Garshwiler, Indianapolis; Robert Moore, Indianapolis.

HOTEL AND HOUSING COMMITTEE—A. E. Guedel, Indianapolis, Chairman; LaRue Carter, Indianapolis; A. B. Graham, Indianapolis; C. R. Strickland, Indianapolis.

GOLF COMMITTEE—W. S. Tomlin, Indianapolis, Chairman; H. H. Wheeler, Indianapolis; Goethe Link, Indianapolis; Thos. L. Sullivan, Jr., Indianapolis.

PUBLICITY COMMITTEE—Thos V. Keene, Indianapolis, Chairman; Norman Jobs, Indianapolis; J. H. Taylor, Indianapolis; Thos. J. Beasley, Indianapolis; C. S. Goar, Indianapolis.

MEETING PLACE COMMITTEE—Charles N. Combs, Terre Haute, Chairman; Wm. A. Doeppers, Indianapolis.

RECEPTION COMMITTEE—All members of Indianapolis Medical Society.

MILITARY COMMITTEE—J. R. Eastman, Indianapolis, Chairman; LaRue D. Carter, Indianapolis; W. M. Stout, Newcastle; Charles N. Combs, Terre Haute; Carl Habich, Indianapolis; R. G. Hendircks, Indianapolis; J. S. Robison, Winchester.

BUREAU OF PUBLICITY—W. N. Wishard, Indianapolis, Chairman; F. W. Gregor, Indianapolis, Secretary; David Ross, Indianapolis; J. H. Stygall, Executive Secretary.

ADVISORY BOARD TO BUREAU OF PUBLICITY—(Appointed by Council)—S. E. Earp, President Indiana State Medical Association; E. M. Shanklin, Chairman of the Council; A. E. Bulson, Jr., Editor Journal of the Indiana State Medical Association.

THE JOURNAL

OF THE

INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

ISSUED MONTHLY under Direction of the Council

ALBERT E. BULSON, Jr., B.S., M.D., Editor and Manager

OFFICE OF PUBLICATION: 406 West Berry Street, FORT WAYNE, INDIANA

VOLUME XVII

AUGUST, 1924

NUMBER 8

ORIGINAL ARTICLES

THE IMPORTANCE OF ANOMALIES IN THE DIAGNOSIS AND TREATMENT OF DISEASES OF THE URINARY ORGANS*

H. G. HAMER AND H. O. MERTZ, M.D.
INDIANAPOLIS

To understand the cause for and the nature of many of the anomalies of the urinary organs which possess a definite surgical importance, it is necessary to know the principal changes which occur in the normal development of the kidneys and ureters in the human embryo.

In the embryo, situated on either side of the neural canal, are mesodermal tissue masses. These extend from the lower cervical to the upper sacral vertebra levels. They are the anlage of the secretory system, their specialized function appearing first at the cephalic extremity, the pronephros resulting. This secretory body has but little function in the human embryo. Next the mid-portion, extending from the fifth cervical to the third lumbar vertebral segments, becomes active, and is called the mesonephros or wolffian body. This is most active at the fourth to fifth week of embryonic life, gradually decreasing until it ceases to function at about the fifteenth to the sixteenth week. Its excretory duct, called the wolffian duct, during the period of activity of the wolffian body opens into the cloaca, and when the wolffian body disappears, the duct remains as the vas deferens and globus minor in the male, or as the rudimentary body, Gartner's duct, in the female. The caudal portion of this primitive mesodermal tissue, assumes a specific function last—the metanephros or permanent kidney developing. Beginning differentiation of this tissue may be identified as early as the five m.m. stage of embryonic development. Coincident with this change there appears a budding from the caudal extremity of the wolffian duct whose blind end is immediately capped by this mesodermal tissue developing into the permanent kidney. This evagination occurs at the point where the wolffian duct bends horizontally to enter the cloaca. The bud

then passes downward and backward where it meets the developing permanent kidney. The mesodermal tissue forms the secretory portion of the kidney, the budding from the wolffian duct becoming the ureter, pelvis, calices and collecting tubules.

The kidneys are at first pelvic in location and remain so for from three and one-half to four weeks, that is from the fourth to the seven and one-half or eighth week of embryonic development, when they pass the upper border of the pelvis becoming abdominal organs. In ascending out of the pelvis their relative positions—one to the other—are constantly changing and at times but little tissue intervenes between the two developing kidneys. In the abdomen they continue their ascent and at term they extend from the lower thoracic to the third or fourth lumbar vertebra.

Coincident with the change in position of the kidneys, there occurs a rotation of the kidney in such a manner that while in the four or five-week-old embryo the hilum and pelvis are directed anteriorly, in the adult they face medianward and posteriorly.

Definite irregularities of the surface of the kidney, lobulations are present in the embryo kidney but normally this fetal lobulation has disappeared by the fourth year of life.

The blood supply is derived from the larger vessels in closest proximity to the kidney at any particular period in its development. As the kidney ascends this source of blood supply changes and in its ascent, as rotation is taking place, the vessels not only enter the kidney at its hilum but pass directly into the parenchyma at a near point of its surface.

The ureter, as it leaves the wolffian duct is not, as we know it in the adult, a hollow tube with a comparatively regular channel. Up to the end of the third month of intrauterine life, the ureters are but small cords and the lumen of the canal does not exist as an open channel until the early part of the fourth month. At this time the transverse folds of the ureteral mucous membrane and the various valve formations normally disappear.

ANOMALIES OF THE KIDNEYS

Congenital anomalies of the kidney may be classified as anomalies of form and volume,

*Presented before the Section on Surgery of the Indiana State Medical Association at the Terre Haute Session, September, 1923.

anomalies of number, and anomalies of position. Many of these congenital changes are comparatively common, but are of minor importance, and have no special diagnostic or surgical significance, possessing only an anatomical and embryological interest. The more marked abnormalities of form and volume may influence our diagnosis and surgery, first in that such a kidney is rendered more vulnerable to bacterial invasion and disease



Figure 1. Fused kidney—autopsy specimen—(Dr. J. B. Jackson's case). Complete fusion of the kidneys existed, the pelvis remaining separate. Left ureter and pelvis markedly dilated. Arrows indicate anomalous blood vessels and the point of entrance into the fused mass. Other anomalies were present.

because the anatomical deviation from the normal exists; second, because in such instances there may be faulty rotation of the organ—the pelvis being directed anteriorly, posteriorly or laterally; and third, because of the frequent association of variations from the normal in the arrangement of the blood supply. When the supernumerary vessel enters the hilum of the kidney it has no special surgical significance, but when it enters the kid-

ney parenchyma at its upper pole, a dangerous anomaly exists for the surgeon. When a lower polar vessel is present, it has a direct relation to the production of hydronephrosis and it becomes a definite entity in the diagnosis of renal conditions. Accessory renal vessels may occur with or without other congenital changes in the kidney, and the frequency of the occurrence of the aberrant polar vessels should be kept constantly in mind during operation for nephrectomy or nephrotomy. With any congenital change in the kidney mobilization should be gradually and cautiously done, care being taken at the upper and lower poles to never tear strands of fibrous tissue before they have been inspected and palpated to exclude an accessory renal vessel.

The surgical significance of congenital atrophy of the kidney is evident as with the atrophy there is a corresponding decrease in the function. Its frequency is such, (Gastaldi in 1910 reported sixty-six cases) that it must be considered by the surgeon doing renal surgery, its presence being eliminated before surgical measures are directed toward the larger kidney on the opposite side. The detection of a unilateral congenitally atrophic kidney may be difficult as the ureter and pelvis may be of normal size, or the ureter may be obliterated or dilated and even a hydronephrosis may be present.

Of the anomalies of number, a supernumerary kidney must be exceptional. As the ureter from the supernumerary kidney most frequently joins the ureter from the other kidney on the same side, its diagnosis is at present difficult, and it is most frequently an accidental finding at the operation.

The congenital absence of one kidney is more frequent and has a diagnostic and surgical problem peculiarly its own. Ballowitz has assembled 231 cases. The single kidney may be diseased as is the normal kidney, but the laws governing its surgery are very different. Nephrectomy would result in death. To appreciate its importance one needs but to recall the work of Eliot, who in 1910, collected eighteen observations of calculous anuria in a congenitally single kidney, and found that of the eighteen death resulted in fourteen. In other instances, however, instrumental measures have succeeded in dislodging the stone and relieving the patient of his acute illness with the stone being later successfully removed.

Success in treating surgically the single kidney depends upon an accurate diagnosis. Every measure at our command should be employed in the suspicious case and it is well to recall that the presence of but a single ureteral orifice at its normal location in the bladder does not mean a single kidney exists, the ureter from the second kidney may have an extravasical opening; and also that there may be a total absence of one kidney and there still be found in the bladder two normally placed ureteral orifices with a second

ureter which can be catheterized for a varying distance. But in the last instance no urine from this side will be secured and x-ray, ureterogram and at times abdominal exploratory incision is necessary for a complete diagnosis.

Anomalies of position may be divided into two classes: First, the misplaced kidneys are separate and distinct, and second, the two kidneys are misplaced but are united. In the first instance the anomaly may be unilateral or bilateral and the kidney may be located in the lumbar or iliac fossae or in the pelvis proper. The kidney is usually flattened anteroposteriorly and disk-like in outline. It is lobulated and its vessels are



Figure 2. Primary x-ray showed a stone shadow and pyelogram disclosed anteriorly displaced pelvis with part of the pelvis over the margin of the vertebra. Operation disclosed calculous pyonephrosis in one-half of a horseshoe typed fused kidney.

atypical in origin and distribution. The ureter is shortened to a degree depending upon the extent of the misplacement. The anomaly may be crossed, the ureter from the right side of the bladder leading to the dystopic kidney on the left side. The hilum and pelvis are directed anteriorly. The diagnosis is made certain by cystoscopy and ureteropyelography, showing but a partially rotated kidney with an anterior pelvis in an abnormally low position. Its surgical significance depends upon its abnormal relation to other visera and the alterations in the arrangement of its blood supply, when two kidneys are present; and upon a proper understanding that such a misplaced kidney may be the only kidney. Girard has reviewed fifteen such cases. An ectopic kidney is subject to the same diseases as is the normally placed kidney, however, when it lies in the pelvis it has the added significance in that it may interfere with normal pregnancy resulting in abortion or demanding an interruption of the pregnancy. The pregnant uterus may exert pressure upon the misplaced kidney and cause retention or infection, or if the kidney is enlarged it may interfere mechanically with the progress of pregnancy.

Congenital malpositions of the kidney in which the two kidneys are united are not infrequent. The arrangement, shape and position of the united

kidney masses covers a wide variation and while a few types are more frequent, almost any conceivable form has been observed. The various forms of the unilateral fused kidney and the horseshoe kidney are the ones usually encountered, and they present distinctive diagnostic difficulties and have a special surgical importance.

The fused kidney very frequently has faulty drainage because of the abnormal anatomical relations, and hydronephrosis and pyonephrosis is not uncommon. Any of the many diseases of the kidneys may occur in such type kidney, but in the presence of such an anomaly, a diagnosis of but the pathological process present is not sufficient. The investigation should be such that when complete in the majority of instances the anomaly will be detected. This can be accomplished only when the exact location of the two pelves is visualized by the x-ray. In this manner one or both pelves will be found low lying; one or both may show evidences of being directed anteriorly—the pyelogram being irregular, flattened out over an extreme area on the anterior surface of the kidney, evidencing faulty rotation; one or both pelves will be found to lie abnormally near the vertebra or indeed overlying them, and in certain cases of unilateral fused kidney the calices of the caudal portion of the fused mass will be directed toward the vertebra, both pelves lying on the same side of the spinal column. The anomaly is of sufficient frequency that palpable mass in the umbilical or hypogastric region, not otherwise accounted for, should arouse suspicion of a fused kidney, as in



Figure 3. Pyelograms of two pelvic kidneys:

(a) Poor drainage was present. The pelvis was facing anteriorly. This kidney was removed because of repeated attacks of intermittent hydronephrosis.

(b) A pelvic kidney which was infected and had been on several occasions the seat of acute retention with perinephritis.

the usual horseshoe type anomaly the lower poles are united and the fused mass lies across the lower spine, at the promontory of the sacrum or in the pelvis.

The source of the blood supply and its arrangement as it enters the kidney, the anterior position of one or both pelves, its unusual relation to abdominal and pelvic viscera, the close proximity of the large vessels of the abdomen, all of these influence the plan of surgical attack upon this type of anomaly.

It has been suggested that the anterior transperitoneal approach is best in operation upon a fused kidney. This would be true were it not for the frequent element of infection, which often amounts to a grave disadvantage for transperitoneal operation.

It would be difficult to expose a fused kidney through a posterior incision; but through a posterior-lateral incision the working field can be made quite as adequate as with an anterior incision. Routine pyelograms are not always advisable—the condition of the kidney or of the patient contra-indicating its employment—and such kidneys will continue to be encountered at operation unexpectedly. However, if the functional capacity of each half of the fused kidney and the number and relationship of the ureters to the renal tissue is not known, the question of how to proceed is a very serious one. The best, or the only good renal tissue the patient has, must not be removed.

In the removal of stone from the pelvis the approach should be made anteriorly instead of in the usual way.

Heminephrectomy may be required for infection, stone, tuberculosis or neoplasm. The stump of the isthmus may be sutured over or clamped.

ANOMALIES OF THE URETERS

Anomalies of the ureters comprise the following:

1. Variations in the length.
2. Variations in the lumen.
3. Variations in origin and termination.
4. Variations in number.

The variations in length are usually the result of congenital malposition of the kidney and have no special diagnostic or surgical importance.

Congenital variations in the lumen of the ureter occur rather frequently and may be the contributing cause to the development of disease of the kidney. Obstructions of the ureter may be partial or complete, may occur at any point in its course, but are most frequent at its points of normal narrowing. Valves may persist, or the ureter may never have developed a lumen for a varying distance. If the obstruction be at the ureteral meatus, a cyst-like dilation of the end of the ureter occurs which may protrude in the bladder. Such kidneys are always diseased. On the presence of a demonstrated congenital obstruction in one ureter, the opposite ureter should be carefully studied, as the anomaly may be bilateral. The diagnosis is made possible only by thorough cystoscopic and uretero-pyelographic study. Its

surgical importance depends upon the degree of damage that has resulted to the kidney, and if the obstruction is located at the meatus the degree of cystic distention present. In certain instances of the latter intra-vesical fulguration or incision may be sufficient to relieve all stasis.

Marked difference of opinion exists concerning the importance of congenital changes at the uretero-pelvic junction in the production of stasis. Without entering into the discussion, the abnormally high insertion of the ureter into the pelvis is associated with a rather constant retention of urine and its correction early in the process may be obtained by a plastic operation, while later nephrectomy may be necessary.



Figure 4. Crossed dystopia with unilateral fused kidney. The anterior position of the pelvis is shown in the pyelogram. Arrows point to the course of the ureter as it crosses the sacrum to reach the opposite side. The clinical symptom was hematuria—the bleeding coming from the misplaced kidney.

A ureter terminating in or beyond the vesical sphincter is almost certain to lead to a destroyed kidney. The ureteral orifice may be in the posterior urethra or seminal vesicles in the male; in the urethra, vagina or just below the external urethral meatus in the female. The anomaly may be on one or both sides, may be but a single ureter or one of completely duplicated ureters. The anomaly cannot be anticipated in the male, but in the female in many instances there is a history of normal periods of voiding associated with a constant incontinence. The diseased kidney tissue may demand removal or in certain instances in the female plastic operation upon the lower ureter, causing it to drain into the bladder, may be successful.

The ureter may be partially or completely duplicated. It may be unilateral or bilateral. The kidney having two ureters is frequently diseased and nephrectomy may be necessary. With our present methods of diagnosis and a correct appreciation of its frequency such anomalies are becoming recognized more often. The presence of the extra ureter and the associated anomalous blood supply may complicate any surgery undertaken. In the double kidney with ureteral doubling, heminephrectomy is now receiving considerable attention by urologic surgeons. The problem in performing heminephrectomy seems to be not so much in the difficulty of separating the fused renal tissue but in the separation of the pelves and the upper ureters. The different degrees of proximity of the two ureters is the anatomical fact upon which these difficulties arise. The ureters may be within the same fibrous sheath for any distance, from the bladder even to the kidney pelvis. The overlapping of calices from the two pelves is another condition encountered which would interfere with the success in separation of double kidney in heminephrectomy.

Braasch, in summarizing the results in heminephrectomy, says, "In the treatment of pathological complications in a double kidney the indications for heminephrectomy is limited to but a few favorable cases. The possibility of infection extending to the remaining half of the resected kidney which may necessitate subsequent nephrectomy must be considered."

DISCUSSION

DR. F. S. CROCKETT (Lafayette): The value of a paper of this sort is that it has to do with practical diagnostic problems that we meet. Anomalies of the kidney and ureter are the basis of a good many of our failures in diagnosis. I recall that when I was a student in college I consistently avoided anything in the literature concerning anomalies, because I figured they were so rare that I would never see one. But improvement in diagnostic means have shown us that they are much more frequent than we thought, and while I fear that the state of mind I had in my student days still exists to a certain extent, yet a paper of this sort brings home to us the fact that this is a real problem in diagnosis.

During the developmental period of the human embryo we have three different sets of kidneys, and the permanent, or last set are sometimes influenced by the preceding two types. This particular type of pathology may not become evident until adult or later life. Patients may come to us when fifty or sixty years old with pathology which had its origin in prenatal life.

The practical application of this paper is, What bearing does it have on our everyday life as general surgeons? I would say that it is in the avoidance of unnecessary surgery on innocent

organs. There are probably very few surgeons doing abdominal work who have not been surprised at one time or another to find kidney pathology where other trouble was suspected. The preoperative diagnosis of conditions of this sort and the proper evaluation of kidney function and kidney ability gives the surgeon, when he is suddenly confronted with the unexpected, a better idea of the risk involved if the kidney must be attacked. A pelvic tumor upon going in may prove to be a misplaced kidney, perhaps the patient's only kidney; and feeling anxiously and nervously along the lumbar spine for a second kidney is a poor substitute for having done a ureteral and x-ray examination prior to your surgery. The right abdomen is the part most frequently involved in these misplaced kidney anomalies, and in case of doubt there should be a urologic consultation. These are seldom emergency cases, and there is little excuse for the surgeon who approaches these cases without doing all he can beforehand to justify his diagnosis.

DR. BERNARD ERDMAN (Indianapolis): A doctor sitting beside me said a moment ago that the general surgeon would have to get the urologist to work for him. I feel that we ought to have been working for him a long time ago. There is no question but that, in spite of the fact that some institutions and clinics have called down upon themselves condemnation for some of their methods in advertising—a group of men working constantly together, examining their patients from the top of the head to the soles of the feet, will find out more about their patients than the man who works alone. There is no disposition to say anything about the man who works alone, because he has his problems and he is rendering a service to the people which cannot be rendered in any other way. On the other hand, there is no question but what the time is coming when the general appraisalment of individuals who are our patients will be made with a great deal of conservatism, and we will find more of these anomalies. I believe this applies not only to anomalies of the genito-urinary tract, but after while we will make good pictures of the liver, the gall bladder, the brain—the things that have an immense bearing on general diagnostic surgery.

DR. G. B. JACKSON (Indianapolis): In regard to my case that was mentioned, that case also presented a complete absence of anus and rectum. The perineal region was perfectly smooth. I did a colostomy. The child was less than twenty-four hours old, and when I had finished the nurse told me the baby had passed no urine. Then we attempted to catheterize, but found there was an atresia of the urethra which we could not pass, so I hurriedly punctured the bladder and got a little bit of urine, left the catheter in place, and the baby lived eight days. We fed it on a bottle and it had normal passages through the artificial anus

and passed at first a fair amount of urine, but the quantity became less and less and the baby died, apparently from anuria.

DR. H. O. MERTZ (closing): The object of this presentation was merely to emphasize the importance of this particular type of lesion in our work, and to bring to your attention a condition which I am sure every man who is doing abdominal surgery is having passed through his hands—cases with definite pathological lesions resulting from the conditions we have shown.

THE PHLORIZIN TEST IN THE DIAGNOSIS OF EARLY PREGNANCY

NICHOLSON J. EASTMAN, M.D.
INDIANAPOLIS

To no other problem in medicine, perhaps, does the aphorism of Hippocrates, "Judgment is uncertain and experience fallacious," more fittingly apply than it does to the diagnosis of early pregnancy. Its signs are so trivial and its symptoms often so slight and so easily simulated by other conditions that a positive diagnosis can very rarely be made before the fourth month of gestation. For this reason numerous investigators in the past decade or two have endeavored to formulate certain tests for pregnancy, which would displace the uncertainty of clinical judgment with the accuracy of laboratory science.

Heretofore such tests have been largely serological. They have been based on one hand on the premise that certain biological properties in the maternal serum are changed by pregnancy, such as the activating power and the antitryptic power, and on the other hand on the premise that there is produced by pregnancy a specific reaction by the placental albumen, which acts on the maternal organism like a foreign albumen. Most heralded among such tests was the Abderhalden reaction. The principle of this is as follows: when an alien albumen gets into the blood, it is at once converted into a peptone by a proteolytic ferment, just as it is when taken into the stomach. The ferment varies with each kind of albumen introduced, i. e., it is specific. The ferment specific for placental albumen is demonstrable by Abderhalden's methods. Although the principle of the reaction is very simple, easily understood by anyone, the making of the test requires delicate handling, a large experience in laboratory technique and perfect, frequently tested apparatus. But this is not its most unfortunate objection. It is positive in some cases of carcinoma, in pyosalpinx, in fibroids, and in active pulmonary tuberculosis. It hence has failed in just those cases where most needed and, like the other serological tests, is now of historic interest only.

It has been, for some years, a matter of note that pregnant women exhibit glycosuria with greater ease than other individuals. R. S. Cron

at the University of Michigan Hospital, has found that of 2,200 cases examined, 88 or 4 per cent gave a positive test for sugar during either pregnancy, labor or puerperium. Other clinics show even a higher percentage of gravidæ manifesting mellituria. While certain of such cases—especially those late in pregnancy or in the puerperium—are examples of lactosuria, a considerable number evidence sugar in the urine that is fermentable, that is, glucose. Since such cases exhibit neither diabetic symptoms nor elevated blood sugar, and since they respond usually to the mildest diabetic restrictions, they should probably be viewed simply as a variety of alimentary glycosuria due to lowered sugar tolerance. "the physiological diabetes of pregnancy," spoken of by some writers. A few authors have referred to this phenomena as renal glycosuria. This terminology seems open to question, for to be classified as true renal glycosuria, two postulates must be fulfilled: first, the blood sugar must be normal, and second, the glycosuria must not be influenced by sugar intake. In the author's experience these glycosurias of pregnancy can be definitely increased or decreased by regulating sugar intake.

The cause of the lowered tolerance for sugar among pregnant women is unknown; it may be due to insufficient glycogenetic function; it is more likely, however, associated with an altered interrelationship between the endocrines, involving more especially the correlation between placental, ovarian, thyroid and pancreatic secretions. The only work done in this field, which the writer could find reported in the literature, is that of Falco and quite recently that of Schneiderman. Falco experimented with rabbits and guinea pigs and came to the following conclusions: 1. The islands of Langerhans in pregnancy show, on histological examination, a diminution of their activity. 2. Experiments with placental injections and ingestions seem to demonstrate that the placenta plays by no means a small part in carbohydrate metabolism. Schneiderman believes the phenomena of glycosuria in pregnancy to be due to a functional disturbance in the vagi nerve endings and is able to inhibit the glycosuria with atropine.

While it thus has been observed for some time that pregnancy is associated with a lowered sugar tolerance, the fact has never been utilized in the diagnosis of pregnancy until quite recently. In 1914 Franz Jager, working under Doderlin, endeavored to test liver function in pregnancy by administering 100 grams of levulose. Glycosuria was produced in 65 per cent of his cases. The result in this instance was attributed not to lowered sugar tolerance but to insufficient hepatic action. In 1920 Frank and Notham reported thirty cases in the first trimester of pregnancy in which glycosuria was produced by feeding 100 grams

of grape sugar. In three cases of suspected pregnancy, which were later proved to be not pregnant, no glycosuria could thus be produced. In 1921 Kamnitzer and Joseph, in order to avoid the uncertainties of alimentary absorption, endeavored to induce artificial glycosuria by injection of phlorizin. Phlorizin is a drug which depresses or lowers the renal threshold or permeability to the normal sugar content of the blood, thus permitting a leakage of sugar into the urine. In a normal healthy person 0.01 gram will induce a glycosuria. A pregnant woman reacts to one-twentieth of this dose, 0.002 gram. In 300 cases these observers had contradictory results in only six cases, using Nylander's reagent to determine the glycosuria. While they concluded that a negative response to the phlorizin injection was positive assurance that the woman was not pregnant, they reported their positive reactions as rather unreliable, since 10 per cent of their control cases of non-pregnant women manifested glycosuria following the test as they performed it.

During the past year various American investigators have experimented with pregnancy glycosuria as a diagnostic measure with varying degrees of success. Long and Hirst conclude that ingestion glycosuria is a valuable aid in the diagnosis of pregnancy but find the phlorizin test unsatisfactory. Likewise, P. F. Williams reports poor results with phlorizin. Welz and Van Nest, experimenting with ingestion glycosuria only, find it is a reliable diagnostic measure in 95 per cent of their cases. Wellman reports twenty-four cases in which the phlorizin technique was used with only two contradictory results.

It occurred to the writer that the independability of the positive reactions as found by Kamnitzer and Joseph may possibly have been due to their use of Nylander's reagent as a test for sugar, since Nylander's reagent is extremely delicate, detecting sugar, if present, to the extent of 0.025 per cent, and is considered by several authorities to yield positive reactions in the urines of some healthy individuals. Accordingly, about two years ago the writer concluded that it might be worth while to repeat these experiments, using Fehling's solution as the reagent instead of Nylander's. This would not only render positive reactions of greater value, but would also put the test on a basis where any practitioner could use it with his stock laboratory equipment.

One hundred and thirty-six women, all suspected of being in the first trimester of pregnancy, have been examined and followed. With the exception of eleven private and consultation cases, the material used comprised the patients at the Prenatal Clinic of the City Dispensary. The routine technique used follows:

Every case which comes in for the diagnosis of pregnancy or in whom pregnancy is doubtful, is asked to return to the clinic the following morn-

ing, having omitted breakfast. Upon her return she first voids a control specimen, which is examined for sugar and if negative, she is then injected intramuscularly with 2 c.c. of the following solution:

Phlorizin03 grams
Procaine015 grams
Water, qs.....	30.0 cc.

The solution has previously been boiled and kept in a sterile bottle. Following the injection the patient voids at intervals of thirty minutes, until three specimens are collected. These are then examined for sugar. If any of these reacts positively to Fehling's solution after sixty seconds of boiling, the woman is presumably pregnant; if all three specimens are negative, she is not pregnant.

In the series examined,—one hundred and thirty-six cases,—positive reactions to the phlorizin were given in seventy-eight cases, negative in fifty-eight. Of the seventy-eight patients who exhibited glycosuria following the phlorizin injection, seventy-four have since been definitely proved pregnant; four cases have failed to confirm the positive diagnosis of pregnancy as made by the test. Of the fifty-eight cases who exhibited no glycosuria following the phlorizin injection, fifty, in three months following the test, showed no further evidence of pregnancy; in eight cases the test failed to detect the pregnancy which was undoubtedly present at the time at which the test was made. In other words, there were twelve failures in the series.

Some details of the writer's experience may be of interest. The earliest pregnancy in the series was three weeks, the oldest three months and a half. The average duration of amenorrhea, in those cases in which that was a symptom, was sixty-seven days. In other words, the test was used in this series at a time on an average when the patients had passed by only a few days their second missed period. Of the seventy-eight positive cases, thirty-one were primiparous and forty-seven multiparous. Of the fifty-eight negative, ten were primiparous and forty-eight multiparous. The ages varied from fifteen to forty-one.

In these cases in which a negative response was given to the phlorizin test, an effort was made in every instance to diagnosticate the condition which had stimulated pregnancy. These are of interest in throwing light on the efficacy of the test in differential diagnosis and they number among them the following conditions: fibroids, three; menopause, twelve; lactation amenorrhea, thirteen; ovarian disfunction associated with adiposity, eight.

Mention has been made that the earliest pregnancy detected was three weeks. This was in one of the private cases of the series, in which, due to marked pelvic pathology, a hysterectomy was done by Dr. J. R. Eastman on the day following the

positive phlorizin reaction. In the fundus of the uterus a fetus was discovered eight millimeters long.

An objection has been voiced to the phlorizin test on the ground that a substance sufficiently powerful to produce a temporary glycosuria with such ease, cannot be without its danger of producing, in some cases, a permanent glycosuria or nephritis. In one of our cases—not reported in this series—the solution was, through error, compounded phlorizin 0.3 grams instead of 0.03 grams, resulting in a solution ten times the correct strength. In testing the first specimen of the case in which this faulty solution was used, one drop of urine at once reduced the Fehling's solution to a brick red. Upon communication with the pharmacist who prepared the solution, the mistake was apprehended and considerable alarm felt for the patient. On the succeeding day, however, she showed neither sugar nor albumen in the urine and frequent urine analyses in the six months following the injection have been unable to detect any urinary pathology. Hence, if in ten times its correct strength, it proved apparently harmless, it must, in its correct dosage, be quite without danger.

In the practice of every obstetrician there arise occasions when it is desirable—in some cases imperative—to establish definitely the existence of pregnancy. Heretofore our only resource, when in doubt, has been time, waiting, perhaps, thirty days until the course of events either proved or disproves our diagnosis. It is hoped that in such instances as these the phlorizin test may gain a wider use. The writer has found it of definite, practical value in cases of pulmonary tuberculosis complicated by early pregnancy, in one case of long standing chorea in which an exacerbation was traced by means of the test to a two months' gestation, in cardiac cases, in nursing mothers who evidenced symptoms of pregnancy and especially in gynecological cases prior to operation, in which recent menstrual irregularities have made it impossible to eliminate entirely an existing pregnancy. He is not unaware that the series presented—including twelve admitted failures—is not one upon which to base absolute conclusions. He is also aware that, while in his hands the test proved reliable in ninety per cent of the cases, it, in other hands, has seemed less satisfactory. Yet he cannot help feeling, from his observations, that the phlorizin test may become a valuable adjunct in a different problem and that it, at least, should be viewed with hopeful expectancy at its minimum appraisalment.

ABDOMINAL EMERGENCIES, MEDICAL AND SURGICAL*

JACOB K. BERMAN, M.D.
INDIANAPOLIS

Surgeons deplore the use of the term "acute abdomen," because so many acute abdominal conditions are not surgical. In the discussion that follows I am presenting, therefore, the facts pertaining first, to the medical abdomen, and second, those relevant to the surgical abdomen. Obviously one cannot go deeply into either.

We all have met with the patient who suddenly becomes very ill. His pain is in the abdomen and is severe. He complains of nausea and vomits. He is distended. His pulse is rapid and his fever is high. He is much alarmed. What are we dealing with? Is it serious or not? Where is the lesion? What is to be done? Operate or wait? Shall we use the hot water bottle or the ice bag? Give morphia or try to establish the diagnosis first? The symptoms may be mild, yet the pathological condition and its prognosis serious or the reverse may be the case.

Whether we are surgeons or not it first behooves us to consider medical conditions which may so simulate surgical states as to be thoroughly misleading.

In the thorax we have first heart conditions, which may present phenomena carelessly referable to the abdomen. Pericarditis, coronary disease, including angina pectoris and coronary closure. These conditions are protean in their manifestations and may give rise to abdominal pain, distention, tenderness, fever and rapid pulse. In the Massachusetts General Hospital for the last ten years, statistics show that about fifty per cent of the patients with coronary disease have upper abdominal symptoms. Dr. L. L. Hart in the *Journal of the American Medical Association* of March 1, 1924, has an article on coronary thrombosis simulating perforated peptic ulcer. He states that it may simulate gall stones or pancreatitis with its sudden shock and upper abdominal symptoms. However, in angina we have a drug that helps us in our differential diagnosis. This is amyl nitrite. By relaxing a spasm a needless and dangerous surgical procedure may be obviated. Hart says further, "In pericarditis we depend upon our friction rub and in coronary disease upon our signs of decompensation, arrhythmia, fibrillation, falling blood pressure and increased dullness to the right. Also the disappearance of a systolic murmur before the attack or the appearance of a mitral murmur and signs of early pulmonary edema."

Pneumonia and pleurisy, whether simple, serious, or purulent, have long been known to cause abdominal symptoms. This is especially true in

*Presented before the Marion County Medical Society April 15, 1924.

children. Very often the pain is felt over McBurney's point. Dr. Thomas McRae believes with others that our surest way of differentiating is by careful examination of the lungs. However, he adds that in early pneumonia the general practitioner looks for dullness and increased breath sounds. What is present is tympany and diminished breath sounds with a few distant rales. DaCosta calls attention to the significance of superficial tenderness as distinguished from deep. The former is hard to elicit in children. He says the pain in these cases may be due to inflammation of the diaphragmatic pleura or may be reflected along the lower six intercostal nerves, which supply the lower part of the pleura and abdominal wall. Irritation of the eleventh thoracic nerve causes pain in the iliac region. "There may be superficial tenderness in the abdomen, but deep pressure is well tolerated," says Dr. Donald H. Wood in the *British Medical Journal*. There may be abdominal rigidity. The abdominal pain seldom persists more than a few hours. It is intensified by deep respiration, and is accompanied by high fever. As Hood says, "Whenever a patient suffers from vomiting, abdominal pain and a high fever, examine the chest." Sir Thomas Oliver has described what he calls "the abdominal type of pneumonia." It is characterized by the sudden onset of severe abdominal pain. Vomiting often occurs. There is then a chill, usually a rise of temperature and in some cases collapse. The pain is accompanied by tenderness, and both of these phenomena may be in the right iliac region. Early there are no physical signs of pneumonia. In a few hours the patient reacts from collapse, the abdominal pain and tenderness subside, the temperature rises and signs of pneumonia become evident. In young children pneumonia is particularly apt to cause abdominal pain and rigidity. Beyond a doubt more than one abdomen has been opened for supposed appendicitis when the real condition was pneumonia.

There are many medical conditions in the abdomen which may give rise to symptoms and signs so similar to those of an abdominal calamity that it is sometimes difficult to differentiate. In some of these cases the pathology is not in the abdomen at all, the pain and other symptoms are referred. The gastric crises of tabes are commonly misinterpreted. Prof. J. H. Gibbon, of Philadelphia, refers to this symptom complex as one of the most frequently missed conditions. The diagnosis ordinarily should not be difficult. The reflexes, eye signs, gait, blood and spinal fluid findings should establish the diagnosis. However, it may occur in the pre-ataxic stage. Consider here its sudden onset, severe vomiting and no fever. The blood pressure is raised during an attack. This occurs only in three other states, angina pectoris and abdominalis, and lead colic. Acute cerebrospinal

meningitis often gives purely abdominal symptoms with high fever. This is especially true in children. I remember two such cases at the Indianapolis City Hospital. The positive Kernig and Brudzinski, neck rigidity and cloudy spinal fluid ought to establish the diagnosis.

Dr. J. H. Gibbon refers to atrophic cirrhosis of the liver with its accompanying gastric or low esophageal hemorrhage as a common stumbling block. Many have been operated for gastric ulcer on this basis. Yet we are all aware that very rarely is hemorrhage from the stomach an indication for immediate surgery. One of my surgeon friends tells me that passive congestion of the liver is not infrequently called liver abscess. A careful heart examination would easily reveal the true condition. A third condition of the liver of which we are forced to take cognizance is a hypertrophic or Hanot's type of cirrhosis or even an acute hepatitis as a result of "white mule" poisoning. Never before was the old legal adage of "caveat emptor" more real than now, and no class is immune, except those who abstain. I observed three such cases at the Indianapolis City Hospital. One was called gall bladder disease because of the pain over the gall bladder region, jaundice, fever, flatulency, and acute gastro-intestinal symptoms. At operation the gall bladder was normal but a large boggy liver was found. In another case erroneous diagnosis of tuberculous peritonitis was made. The history of a drinking party with gastro-intestinal symptoms and jaundice should warrant investigation along the lines mentioned before operating.

W. H. White refers to acute gastritis following the use of morphine in some cases as being misleading. Gall stone colic is often protean in its manifestations. But here, as in renal colic, the pain may come and go, it is relieved by pressure and comes on very suddenly. Movable kidney, Dietl's crisis, and above all pyelitis is apt to be mistakenly diagnosed. This is especially true in children, in whom it may give all the symptoms and signs of appendicitis. A microscopic examination of the urine in the latter condition often clears the diagnosis.

Typhoid fever may give acute abdominal symptoms. Obviously I do not refer to perforation. The slow pulse, leukopenia and positive blood culture are conclusive. Diabetes, because of the marked tympanites and vague abdominal pains may mislead, according to French, as may colitis, especially in children.

There are three outstanding conditions of the intestines which may simulate intestinal obstruction. First, angioneurotic edema. A careful history will reveal susceptibility to certain foods, with perhaps previous attacks. Usually the attack is accompanied by urticaria or edematous areas on the face or body. Calomel in divided doses with sodium bicarbonate will cause a rapid

disappearance of the symptoms. Second, a spasmodic condition known as angina abdominalis in which vomiting, flatulency and severe abdominal pain occur. There is usually a history of previous attacks. Vaso dilators help to differentiate. A high blood pressure is usually present and the general arterial system may be atheromatous. Third, Henoch's purpura often simulates intussusception in children. Usually there are areas of purpura on the skin, and this fact should make us suspicious of the true nature of the lesion.

The genito-urinary men tell us that often an acute retention with an enormously distended bladder may give rise to pain, fever, vomiting distention and a tumor mass. Laparotomy has been done in such cases. A careful examination and a catheter may save us from such errors.

In passing I wish to mention two general diseases worth bearing in mind: influenza and the acute exanthemata in children before the rash occurs. The former may give rise to abdominal pain, distention and diarrhoea. This has been called abdominal flu. There are no localized points of tenderness. There is general malaise with fever. The depression and prostration come on very rapidly. However, the symptoms are out of all proportion to the signs elicited.

The conditions I have mentioned in outline form are not all, nor have I clearly cited all the symptoms and signs necessary to establish a diagnosis. However, I am convinced that in most cases of error the mistake is made because the above possibilities are not thought of and ruled out. Difficult as this is at times, I believe that in a majority of the cases abdomens will not be needlessly opened if efforts are made to rule out acute medical conditions first.

And now we pass on to the surgical phase of this subject. Space is, of course, too limited to present anything like a complete diagnosis scheme of the acute surgical conditions of the abdomen. It may be desirable, however, to recall some general considerations. Having determined the condition to be surgical and an abdominal calamity, we proceed further, quickly to determine whether it is shock, hemorrhage or infection.

Peritoneal shock, or "peritonism" is evidenced by subnormal temperature, cold extremities, pallid and sunken face, small, weak and rapid pulse, shallow and sighing respiration. There is great thirst, the patient is restless and turns uneasily, and there is rigidity and distention. Vomiting almost always occurs. In some cases there is regurgitation rather than vomiting. The abdomen is the seat of violent, persistent pain. The patient is fearful of impending death. As the symptoms develop in a grave case they will point to one of two conditions, hemorrhage or peritonitis. Therefore this case is watched closely, and the surgeon cautiously attempts to bring about a reaction, as I shall describe later.

If the condition is one of intra-abdominal hemorrhage the subnormal temperature and evidences of shock persist. Vomiting ceases, but nausea exists. The patient is uncontrollably restless and tosses about in bed. The thirst is great, even desperate. The abdomen is rarely rigid. Fainting spells occur. There is a progressively increasing dyspnea and finally actual "air hunger." Blood examination shows a marked fall in hemoglobin. Percussion demonstrates the existence of an effusion which alters its position as the patient's position is altered, and which gradually increases in amount. Dullness is first met with in the loins. Digital examination of vagina or rectum may aid in the diagnosis, because in hemorrhage blood gathers in the recto-vesical or in Douglas' pouch.

If peritonitis develops the vomiting is aggravated, the pain is intensified and the abdomen grows rigid and distended. As DaCosta says, "The exact diagnosis is always difficult and in many cases is impossible. What the surgeon must try to determine and what he usually can determine, is whether he is dealing with a trivial and temporary derangement for the relief of which an operation is entirely unnecessary, or whether he is confronted by a grave calamity which imperatively demands immediate surgical aid. We can decide that a calamity exists, but the exact nature of the lesion is often doubtful until operation is performed. Every operation in such a case is exploratory."

Confronted by a grave abdominal situation, what shall our course of immediate procedure be? Before the diagnosis of a calamity is made morphine should not be given, because it allays the pain, relieves the anxiety, causes the disappearance of rigidity, lowers the pulse, abates mental shock and hence veils the true situation, so that the most discerning surgeon will be misled. If shock is profound, diagnosis is usually impossible, unless shock is due to hemorrhage, and immediate operation during shock is not to be thought of except for perforation or to arrest bleeding.

If excessive and continued hemorrhage is suspected immediate operation is indicated. If it is not suspected, the patient should be covered with blankets and surrounded with hot water bottles, atropin should be given hypodermically and hot salt solution should be administered by rectum, subcutaneously or intravenously. After reaction, and we usually get it, an attempt is made to make a diagnosis. An ice bag should not be used. Truly, it allays pain, but it abates rigidity and masks other symptoms as would a dose of morphine.

The application of the ice bag to relieve pain and give the patient comfort has long been practiced in cases of suspected peritonitis. This is done routinely by a great number of men. By

some until the diagnosis is established. In the paragraphs that follow I have tried to review the facts for and against the application of cold rather than heat in these cases.

J. C. DaCosta says, "If the case is one of inflammation cold is distinctly harmful. If we could see the case in the first three to five hours, cold would be indicated to combat the active hyperemia. But this only lasts a short time. It is a very acute inflammatory process which usually has disappeared by the time we see the average case. After about five hours the inflammation shows a stasis and the only active part is at the periphery. So cold may help the periphery and harm the center."

Inflammation consists first of a momentary constriction of the blood vessels, then comes the active hyperemia . . . a dilatation of the small vessels and a primary acceleration of blood flow to the part. Then comes a secondary retardation of the circulation which progressively increases until stagnation or stasis of the blood current occurs. Now exudation of blood plasma takes place with adhesion of leucocytes to the walls of veins and capillaries. Then migration of the leucocytes and aggregations of blood cells into intravascular masses, resulting in a coagulation of the material remaining in the vessels.

We must recognize that the application of cold has distinct advantages in early inflammations. Ice acts by constricting the vessels of a hyperemic areas, thus lessening the amount of blood sent to the part and preventing the evolution of the process into the stage of stasis and exudation. Further it prevents the migration of leucocytes, retards cell proliferation, relieves pain and tension and lowers temperature. However, if cold is too intense, if it is kept too long applied, and above all if used too late in inflammation it does harm. Then, too, it does harm if used upon an old or feeble patient or in a condition where there is much exudation or tissue strangulation.

DaCosta says further in regard to the use of cold, "It lessens the nutritive activity of cells, constricts the lymph spaces and channels, increases existing stasis, hence lowers the vitality of the tissues and may cause gangrene. If the parts are constricted as in strangulated hernia, or if they are compressed by a large exudate or fed by diseased blood vessels, or if the patient is old or exhausted, cold is particularly apt to cause gangrene. Cold should not be used in a bacterial inflammation. In such an inflammation it is desirable that quantities of active leucocytes should come to the part. The phagocytes destroy the bacteria and circumscribe the inflammatory focus. Cold keeps much blood and hence many leucocytes out of the part, lessens the ameboid activity, and prevents the migration of leucocytes which do succeed in arriving. Therefore, cold actually favors the spread of a microbic process. Furthermore, it

lessens leucocytosis and thus lessens the protective reaction of the tissues. DeNancrede, in his "Principles of Surgery," points out that in an inflammation stasis soon arises at the focus of inflammation, and there is an area of stasis surrounded by a zone of hyperemia. Cold benefits the hyperemic zone, but aggravates the stasis. DeNancrede cautions us as follows, "Judgment is therefore requisite to decide whether the evil at the focus will not outweigh the good exerted at the periphery." He further points out that cold must not be used intermittently but if employed at all, must be continuously applied. If cold is applied intermittently there will be a reaction whenever it is removed, and this reaction causes increased hyperemia. Hence, cold must be continued in action to prevent reaction. This fact would contraindicate its use in the old and feeble.

Because of the above mentioned reason we should be very cautious in the employment of the ice bag in inflammations. Far better is the employment of heat. Needless to say, the popular notion that heat and cold act alike is erroneous. For in order to obtain the effect of the ice bag, heat would of necessity be so intense as to be destructive of the superficial and even deeper tissues. Heat, employed as we all use it, is a distinct aid to nature in the process of fighting infection. Instead of inhibiting the defensive mechanisms of our bodies we help them to become as quickly effective as possible. Heat increases the nutritive activity of cells, relaxes the lymph spaces and channels and tends to relieve the existing stasis, thereby increasing the vitality of the tissues and thus preventing gangrene. Heat further brings more blood to the part, and hence many leucocytes, and increases ameboid activity, thus inviting the migration of leucocytes which help fight the infection. Therefore, heat helps to localize instead of spreading a microbic process. Furthermore, it increases leucocytosis and thus increases the protective reaction of the tissues. For these reasons heat, rather than cold, should be used in most abdominal infections as we see them.

I am certain that with many of the statements presented you will not agree. Surely, I have omitted much in regard to my subject. However, as Sydney Smith has said, "I have the courage to be ignorant of a great number of things in order that I may avoid the calamity of being ignorant of everything."

MAJOR SURGICAL OBSTETRICS*

G. B. JACKSON, M.D.

INDIANAPOLIS

There is, perhaps, no branch of medical practice more important or more fertile for development than the field of operative obstetrics. Certainly there is none more unsettled as to its indications

*Presented before the Section on Surgery of the Indiana State Medical Association at the Terre Haute Session, September, 1923.

or more variable in the element of risk and choice of surgical procedure; neither is there any wherein prophylaxis plays so great a role in relation to major surgery. If these premises be true, then there is none wherein personal effort means so much or individual judgment more.

We shall limit our discussion to an attempt to emphasize the importance of prophylaxis, and by prophylaxis, we refer, of course, to prenatal care, proper and timely orientation of cases and the recognition of the importance of major surgical obstetrics as a specialty.

The term "major surgical obstetrics" implies naturally the existence of minor surgical obstetrics and this with the generally accepted entity of normal obstetrics completes the classification, the importance of which the writer has long insisted upon and has attempted to impress upon the minds of the profession. Were this classification generally accepted and applied in practice, many of the pitfalls of midwifery might readily be avoided.

Major surgery becomes necessary in childbirth upon two general grounds. First, severe emergency conditions involving marked danger to either mother or child and indicating prompt interference, e. g., eclampsia, heart failure, hemorrhage, rupture or threatened rupture of the uterus; second, pre-existing complications making for dystocia, e. g., mal-presentations, relative disproportions including pelvic deformities, obstructive tumors, the physically unfit, etc.

The practice, in relation to these conditions, many of them being preventable and the pre-existing ones being subject to diagnosis and plan, naturally divides itself into prophylaxis and performance.

Concerning prophylaxis, Rice¹, in a recent article, says:

"De Lee has stated that there must be at least 20,000 women and 75,000 babies die each year from lack of proper care during childbirth. We must also take into consideration the innumerable number of women, who, in carrying out the greatest and noblest function of their lives, are left invalids for life from infection or lacerations. In cities where hospitals are available, a small proportion sooner or later seek relief in the gynecologic wards of the hospitals. Some idea of the prevalence of these conditions resulting from childbirth is shown when the records reveal the fact that they are the cause of over one-half of all operations performed in gynecology.

"We must also, in considering this great problem, call attention to the number of children, who, injured during labor, survive to become later a burden to the family or state, as mental defectives, idiots or epileptics.

"The fact that the records show no reduction in the fatalities connected with maternity during the past twenty years, is responsible for the recent

investigations to ascertain the reasons, with the hope of finding measures which might tend to reduce this mortality. Records are available to show that most obstetricians for the past twenty years in their private practice, have been able to demonstrate that careful observation throughout pregnancy and the puerperium, and proper management at the time of delivery, will prevent most of the complications which are responsible for causing this high mortality."

And further the same writer says:

"During the past three years we have not had eclampsia develop in patients who have been under observation in the prenatal clinic."

And again:

"Fatalities of mother or baby are almost always associated with complicated labors, or in normal labors where there has been some interference on the part of the physician or midwife. To safely deliver a living child at term, in most cases of complicated labor, and at the same time protect the mother from lacerations, undue loss of blood, and infection, call for unusual knowledge, skill and obstetrical judgment on the part of the operator."

The prevention of obstetrical catastrophes rests mostly upon the general practitioner, since his is the responsibility for the greater part of the practice. To how marked a degree of effectiveness does he discharge this obligation?

His faults are so great as to almost stamp him derelict. Wherein is this true? First, in that he is careless of the known and very effective means of prophylactic effort embraced in the much exploited prenatal care, capable of preventing many of the major emergencies and of greatly reducing morbidity and mortality. Second, in the lack of sufficient interest and effort to interpret properly his cases and to seek timely aid. Permit me to illustrate this contention by a brief reference to a few illuminating cases which have passed under my observation.

1. A case of shoulder presentation allowed to continue in severe labor for five or six hours after complete dilatation and rupture of the membranes. This at the bedside in a home and the proper diagnosis having been made, the physician awaiting spontaneous evolution.

2. Version and extraction of a ten-pound babe in a primipara, in a home, with immediate death of both patients.

3. Difficult high forceps operation in the home, without the aid of an anaesthetist. Rupture of the symphysis with complete divulsion of the bladder and third degree pelvic floor tear.

4. Difficult high forceps, manual delivery of adherent placenta, by a general practitioner in the home, followed by septic peritonitis and death.

5. There are many cases like this—upon the onset of eclampsia, a general surgeon is called and a Caesarian section elected.

6. Operative delivery (and many times normal delivery) followed by sepsis and death, the practitioner having gone directly to the confinement from a case of erysipelas, scarlet fever or other severe infection.

7. Caesarian section done by a general surgeon (and let me parenthetically remark, it may be a good general surgeon) in order to remove a hydrocephalic head, after a version had been done and decapitation in order to remove the body.

8. Gynecologists, without much obstetrical experience or knowledge, have been known to perform Caesarian section with little regard for competitive obstetrical procedure in case of occiput posterior and dead child.

9. Stretching cervix without gloves and rupturing the bag without proper asepsis and with the notched finger nail.

If these examples have come under the writer's observation in a limited experience, surely in the whole experience of the profession such matters may be multiplied almost to infinity.

This most important and exacting of life's functions—the reproduction of species, contemplating a live child and a mother physically fit—is for the most part taken care of by the general practitioner of medicine. Is the responsibility not sufficiently great to cause him to wake up, study and attempt to fit himself to meet the situation adequately? At the present time, the death rate directly due to pregnancy and labor in women of child-bearing age is second only to that of tuberculosis, one woman in every 140 dying; and the mortality of the infant is about four per cent. One-half of the deaths of mothers are due to postpartum sepsis and surely one-half of these are preventable.

The older authorities classified labor into (a) eutocia and (b) dystocia. Eutocia represents the class of cases which eventuate in comparatively normal delivery. Dystocia, I believe, should be subdivided into minor surgical and major surgical obstetrics. There is in the minds of many teachers a question as to whether there is an actual normal or physiologic childbirth, believing that in this apparent condition there is in practically all cases a relaxation due to over-stretching with structural damage which persists, even though there be no apparent tear. This is the foundation structure of the whole abdomen and therefore not to be compared with any other wall in the importance of its function, and certainly not to be compared in the complexity of its injuries and the difficulty of their repair.

Permit me to suggest a simple and easily remembered classification of the presentations in relation to the classifications given above of normal and abnormal labor.

First, eutocia, or absolutely favorable presentation, vertex, occiput anterior.

Second, major surgical, shoulder, and face or

brow presentation, mentum posterior, these being absolutely unfavorable.

Third, minor surgical, the conditionally, favorable or unfavorable presentation—the mean between these two extremes, all other presentations.

And furthermore, the general physician and even many specialists seldom observe and control the puerperal period which is so greatly variable in its lengths and its risks and so markedly subject to improvement with intelligent effort. If anything, this is the most neglected part of midwifery; the vast majority of patients receive practically no after care.

The knowledge of these elementary principles and all important facts is readily acquired; medical literature is expounding them and experience is verifying them; it needs but average care and observation to profit thereby.

Passing from the consideration of prophylaxis to the performance of major surgery in obstetrics, what do we find of interest and importance for our consideration? Just as truly as prevention, preparation and recognition devolve upon the general practitioner, so does the responsibility of the operative practice fall upon the shoulders of the obstetrical surgeon or specialist.

The camp of the specialist seems to be divided into three classes—radical, progressive and conservative. The over-enthusiasm of the radical may be exemplified by the Potter version with extraction, by the De Lee "prophylactic forceps" and by the claim that all obstetrics is surgery; by the attempt at the general utilization of Twilight Sleep, and by marked over-enthusiasm for the use of pituitrin. The Potter version with extraction (and extraction is the crux of the question) advocated as it is for general application without discrimination in order to eliminate the second stage of labor and thus gain time for the operator, is, in the judgment of the writer, certainly to be condemned. First, because it converts eutocia into major surgery, and second, because it approximately trebles fetal mortality. The version as done and advocated by Potter is excellent, but the operation (as any other major surgical procedure) should be elected upon indication and in competition with other means of delivery, after the weighing of conditions, indications and contraindications.

De Lee's prophylactic forceps and episiotomy, like Potter's version, is a form of extraction or operative delivery eliminating a greater or lesser part of the second stage of labor, and similarly, may be considered a major surgical procedure entailing injury in cases which otherwise might be subjects of eutocia. The question in regard to these two matters, it seems to me, in this: Does the second stage of labor *per se* represent a sufficient danger to the life of mother and babe to justify major surgical interference?

As to episiotomy, there is no doubt that it is an

admirable procedure in many cases, particularly in primiparae, and where delivery is artificial; also in spontaneous cases where tear or injury seems inevitable, as indicated by the blanched, tense area in the perineum and by a small showing of bright blood which has not manifested itself before distension of the vulva. This procedure is truly prophylactic, preventing tissue injury and needless loss of time and obviating the necessity of forceps in some cases, especially when combined with the judicious use of pituitrin.

The scope of this paper prohibits a lengthy discussion of the use of pituitrin. Nevertheless, it is my intention to emphasize the fact that it has been and still is considerably abused and to utter a warning against its administration under the following conditions: First, relative disproportion; second, high blood pressure, or the pre-eclamptic state; third, presenting part not engaged; fourth, primiparae, because of the damage to the soft parts. If used at all before the birth of the child, the dosage should be small and tentative. After the birth of the child, in fact, immediately upon its birth, the routine use of $\frac{1}{2}$ cc. of pituitrin when no contraindication presents, exerts a very favorable influence upon the third stage of labor by favoring placental separation and inhibiting loss of blood.

Quoting Doderlein², "In all cases in which, because of contracted pelvis or other complications of the birth canal, the patient cannot be delivered through the normal passage of a living baby at term, the induction of premature labor, the Caesarian section, pubiotomy and the reducing operation upon the fetus come into competitive consideration.

"The relationship of these different procedures is constantly changing, due to improvements in technique so that sharp lines cannot be drawn between them. The question also of surgical environment, that is, as to whether one is working in the home or hospital, has much to do with the choice of operation in a given case."

Harrar³, writing of dystocia, says: "There are two main problems in prolonged labor: one of dilatation, and one of propulsion, and the solving of these still depends upon the understanding and regulation of the relation of the forces, the passages and the passenger."

Unfortunately, none of these is a fixed or measurable quality, hence the importance of personal judgment, the judgment which comes of clinical observation and experience.

These problems present varied and great complexities aside from the definite emergency surgical and medical conditions. There are women who are the subjects of such marked nervous instability as to render them unfit for labor, even though they apparently measure up, constitutionally, to an average normal upon examination. Such women are those whose ordinary life pre-

sents such a degree of stress that the least added burden produces a "prostration," and others who fail to improve in general health during pregnancy. Newell⁴ says "Caesarean section is indicated as an operation of choice in such cases because they stand operation better than they do the stress of pain and muscular exertion." Illustrative of this point, I encountered two cases last spring, briefly as follows: Each a primipara, age twenty-six, weight 105, height five feet one inch; gross pelvic measurements 24-26-19, who were confined within one week of each other, the babies weighing seven and seven and one-sixteenth pounds respectively. The one woman was delivered easily with small episiotomy and low forceps after a prolonged labor which rotated an occiput posterior into the anterior position spontaneously. The other with the occiput anterior position, demanded manual dilatation of the cervix and difficult mid forceps delivery with wide episiotomy, due to dystocia which existed practically from the first pain. The contrast here is the result of a defective neuro-muscular equipment which could not have been determined before because the patient had never undergone the least physical stress.

Permit me a brief parenthetical discussion of pubiotomy.

Pubiotomy is only indicated in cases with a cv above 7cm. I-Para with narrow genitals and particularly in elderly cases with increased rigidity are not suited for this operation.

In speaking of this operation, Arthur H. Bill⁵ says:

"Probably one of the underlying reasons for discrediting pubiotomy is the fact that its proper place was not fully realized and that there was always a tendency to compare it with Caesarean section. The fact should be made very clear that pubiotomy in no way competes with Caesarean section; in fact, its advantage is seen in those cases in which we know that Caesarean section is either contraindicated or its performance is an impossibility. *It competes chiefly with craniotomy on the living child*, and in this connection it may be said that it makes little practical difference whether the physician deliberately perforates the head of the living child, or, knowing that its successful delivery is impossible, makes brutal traction with forceps until he finds there is no longer a fetal heart and then perforates the head. The writer believes that craniotomy is used far too often; in fact, that it is very seldom necessary." And he further emphasizes the opinion that pubiotomy is distinctly an emergency operation and also calls attention to its importance in delivering the after-coming head, especially advising the "prophylactic saw."

The third form of extraction is the Caesarean operation. Newell says "These three indications, the preservation of maternal life and health and

of fetal life constitute the only justifiable indications for this operation. (The writer would add a fourth, i. e., fetal health, when we consider the results of herculean forceps and of prolonged injudicious labors.)

Without mentioning the absolute indications, fixed for many years and understood by everyone, and without attempting a comprehensive discussion of the relative indications, which would comprise a volume, I desire to make the following suggestions as to the field of this operation:

First: The elderly primipara, after a moderate test of labor, the head arrested in the upper third of the pelvis, or a breach not progressing favorably.

Second: Head arrested in the upper third of the pelvis, regardless of age or parity, labor appearing futile.

Third: Placenta previa in a primipara with cervix undilated or not easily dilatible—and this is practically always true in primiparae—or in any other puerpara presenting conditions of a similar nature.

Fourth: Persistent absolutely unfavorable presentations, e. g., face and brow, (mentum posterior) and impacted shoulder, in which conversion and version have failed. The writer has many times regretted his election of difficult forceps operation in cases of dystocia with arrest of the head high in the pelvis, but has never had occasion to regret the performance of Caesarean operation under similar conditions, and believes therefore, that the so-called high forceps operation is an unjustifiable procedure, more especially so where hospital environment is available.

The writer concurs in the opinion of Mandl⁶, who states that "Statistics show the dangers of Caesarean section to be scarcely greater for the mother than induced premature labor, version or high forceps operations."

The dangers of Caesarean section are subject to increase in direct proportion to the following factors: First, the number and technique of vaginal interference, that is, examinations or attempts at delivery; second, the length of time the patient has been in labor; third, the length of time the membranes have been ruptured. However, this is just as true of any other mode of delivery, and to my mind, contrary to general opinion, the danger of sepsis is less in a Caesarean operation, as it is done through an area away from the contaminated field, whereas, the other operations of delivery traumatize this area, thus reducing resistance and opening new atria for infection.

Such workers as Koerting, Wagner, Baisch, Kistner and others⁷ do not hesitate to operate upon indication in the presence infection.

We agree that the scope of extraction by version, forceps and Caesarean operation has been justly widened by asepsis and improved tech-

nique, but we do not agree that they have been rendered of universal application. We hear the argument presented that these specialists are doing better work than the general man, and agreeing to this proposition, we counter with the statement that they are not doing as good work as others of the progressive group, nor as good as they themselves would be doing, were they less radical. Furthermore, I believe with Williams⁸ that were their methods generally adopted by the profession, the midwives would be achieving better results than the profession. For example, the conservative group, as represented by Danforth, Holmes⁹, Polak and many others, publish statistics showing a fetal mortality of about one one-half per cent; whereas Potter suffers a seven per cent in his practice, and others of his disciples as high as seventeen and one-half per cent. Potter performs seven Caesarean sections in every 100 cases confined, whereas the other clinics average about two.

No discussion of this subject—for the most part dealing with the "narrow pelvis"—would be complete without mention of the "artificial induction of labor." The older method of treatment still has some followers and possibly some advantages in that it may be done in the home. However, the writer believes its risk of prematurity in the infant and dangers to the mother are not to be ignored.

CONCLUSIONS

1. The writer is strongly inclined to believe that radicalism, as represented by routine version with extraction, and by routine prophylactic forceps with episiotomy (extraction in another form) is inimical to the sane, progressive development of Surgical Obstetrics.

2. The axis traction and high forceps should give way to abdominal operation in all cases, and so also should podalic version or breach extraction in elderly primiparae, in the presence of slight relative disproportion.

3. Conservatism with proper knowledge of nature's possibilities and limitations, and consequent resort to surgical interference at the time of and only upon evident indications, should remain the rule of obstetrical practice and teaching. This would be greatly facilitated were the subject viewed and classified as suggested in the body of this paper and the cases so listed and divided in the mind of the student and the practitioner.

4. Major obstetrics is essentially surgical and should certainly demand the attention of the expert.

5. The ideal of obstetric practice is the protection of the mother and embryo from the time of conception throughout pregnancy, labor and the puerperum.

6. This matter certainly bears a very marked relationship to the public welfare and becomes

naturally a question of public education. The people who know the importance of childbirth and its adequate care to their community should have at hand physicians properly qualified to meet the situation squarely, and hospitals adequate at least for operative cases. This education would better be attained, I believe, through the concerted efforts of our profession and the assistance of our first aids, the graduate nurses, a sphere of social service. May we not be further remiss in this duty.

BIBLIOGRAPHY

1. F. W. Rice, *American Journal of Obstetrics and Gynecology*, September, 1922.
2. Doderlein (Manual).
3. Harrar, *American Journal of Obstetrics and Gynecology*, March, 1923.
4. Newell, Monograph on Cesarean section.
5. Arthur H. Bill, *American Journal of Obstetrics and Gynecology*, March, 1923.
6. Mandl.
7. *Zentralbl. of Gynecology*, May 21, 1921 (Year-book De Lee, 1921).
8. J. W. Williams, *American Journal of Obstetrics and Gynecology*, October, 1920.
9. Holmes, *American Journal of Obstetrics and Gynecology*, December, 1922.

DISCUSSION

DR. C. O. McCORMICK (Indianapolis): It is impossible to take up all the points the doctor has brought out, but there are three or four that occur to me at this time.

First of all, he speaks of the importance of prenatal care. Shortly afterwards he speaks of the great mortality that still continues in obstetrics. I suppose none of us has attended a medical meeting in the last few years where there has not been a paper that brings before us the deplorable mortality in connection with obstetrics, and this comes from three sources, eclampsia, placenta previa, and the sepsis that follows delivery. Prenatal clinics report that eighty per cent of deaths from eclampsia, and over fifty per cent from placenta previa are preventable.

The doctor spoke of obstetrics being surgery. It is surgery. De Lee tells us that the majority of cases are pathological.

Speaking of pituitrin after delivery, personally I give 1 cc. Outside of limiting hemorrhage and infection, it brings about more complete involution of the uterus and thus prevents after pains. Fifteen to thirty minutes after pituitrin, I advocate one ampule of ergotol.

As to obstetrical care, I think after care should extend at least a year after delivery. A recent author tells us that he finds retroversion as long as nine months after delivery. I think good after care is seeing the patient six weeks, three months, six months, and twelve months after delivery.

DR. A. C. McDONALD (Warsaw): Several things stand out conspicuously in this paper. The essayist has given well defined rules for Caesarian section. First, he says that all cases of breech presentation that do not descend in a reasonable time. What is a reasonable time? You know these cases are long delayed and it takes a lot of time even after the cervix is dilated, and if you

give everybody a chance to have a Caesarian where there is a breech case that hangs on a long time you will do many Caesarian sections.

It seems to me that many cases could be taken care of very well with high forceps. If a man takes his time his own experience will tell him how far to go.

As to using pituitrin, De Lee says you never should use it at all. I had a talk with Davis at the Jefferson last year, and he said there was no place for pituitrin. The fact is that men are using it all the time, and I wonder if De Lee means exactly what he says. It seems to me there are cases where De Lee certainly would use pituitrin, and use it to advantage.

DR. G. B. JACKSON (closing): Insofar as the discussion is concerned I wish to thank the discussants for their favorable comment. The opinions are my own, based upon some reading, some study, some work and experience.

The question of the Caesarian section is, as Doctor McDonald suggested, open to much discussion pro and con. My statement was that in breech presentation in elderly primiparae I have oftentimes elected to do a Caesarian where labor did not progress to suit me, and particularly (which I did not say in the paper) if I had reason to believe that the child was over average size. After all, to a woman over thirty-five or thirty-six years of age, the first pregnancy, the baby means a great deal, and its life must be considered more than in the average pregnancy. We do not subject her to any increased danger, and I believe in some of these cases a Caesarian is very favorable. In the matter of placenta previa in a primipara I think the same rule should hold. I am not a radical operator. I do not do a Caesarian because unruptured membranes are offering too great resistance, but I believe, elected properly, it is good surgery and better than most of the high forceps operations that I have done and seen done.

As far as the use of pituitrin is concerned, I use it quite a little. I use it carefully and according to the rules I have given in the paper. There is some misapprehension in regard to De Lee. He uses $\frac{1}{2}$ cc. of pituitrin upon the birth of the head of the child in every case, and he does use it very carefully during labor.

Who? Me? O, NO-O-O

He—"But do you think I could deceive my own little wife?"

She—"No, I know you couldn't; but you are silly enough to try."—*Dallas News*.

ALL STRAIGHT

Doctor—"Did that medicine straighten your husband out all right?"

Wife—"Yes, we buried him yesterday."—*College of the Pacific Weekly*.

THE JOURNAL*of the***Indiana State Medical Association**

Devoted to the Interests of the Medical Profession of Indiana

ALBERT E. BULSON, JR., B.S., M.D., F.A.C.S.

Editor and Manager

Office of Publication, 406 W. Berry St., Fort Wayne, Ind.

AUGUST, 1924

EDITORIALS**THE INDIANAPOLIS SESSION**

Again we desire to call attention to this year's session of our Association which will be held in Indianapolis on Wednesday, Thursday and Friday, September 24th, 25th and 26th. As an innovation the program will be presented by selected speakers, practically all from out of the State, and from among the most noted teachers and clinicians in the country. The forenoons will be devoted to dry clinics and the afternoons to scientific addresses. Among the men who have accepted places on the program are the following: William J. Mayo, Rochester; W. A. Pusey, Chicago; Edward Jackson, Denver; Hugh T. Patrick, Chicago; Ross Hall Skillern, Philadelphia; Joseph C. Beck, Chicago; Evarts A. Graham, St. Louis; Kellogg Speed, Chicago; Andre Crotti, Columbus; Bransford Lewis, St. Louis; Carl A. Hedblom, Rochester; Major Gabriel Seelig, St. Louis; Allen B. Kanavel, Chicago; Willard D. Haines, Cincinnati; Charles F. Hoover, Cleveland; Frank Smithies, Chicago; Louis G. Heyn, Cincinnati; Walter M. Boothby, Rochester; Alfred Stengel, Philadelphia; James B. Herrich, Chicago; Clyde L. Cummer, Cleveland; W. L. Benedict, Rochester, and Chevalier Jackson, Philadelphia.

On the first or Wednesday evening of the session, the usual smoker will be a feature of entertainment provided by the local profession of Indianapolis. On the second or Thursday evening there will be a public meeting in the Cadle Tabernacle, and this meeting will be addressed by Dr. William J. Mayo, of Rochester, W. A. Pusey and H. T. Patrick, of Chicago. The addresses will be interesting to profession and public alike and it is expected that the Tabernacle, seating eighteen thousand people, will be filled to overflowing to hear them.

Indiana doctors should turn out en masse to attend this annual session, and the doctors from all adjoining states are invited to attend and profit by the wonderful program that will be presented by this all-star cast. As already announced, the September number of *THE JOURNAL* will carry the completed program and other official announcements concerning the session.

MORE QUACKERY

Probably most of those who have made a study of quackery and pseudomedicine have reached the conclusion that charlatanry of the mechanico-electrical type had reached its apotheosis in Abrams' fantastic pieces of apparatus. But chiropractic has gone the E. R. A. one better, and presents to a palpitating world the "Neurocalometer" — a measurer of nerve heat! This marvel, as is fitting, emanates from the Fountain Head of Chiropractic — the Palmer School of Chiropractic, Davenport, Iowa. Chiropractors are being circularized, their interest whetted, and they are urged to send in their orders early. The description given of the device is rather hazy, but the Neurocalometer appears to be essentially a thermopile or possibly two thermopiles, one in each arm of the instrument. The two arms are, apparently, separated sufficiently to allow them to "straddle" the vertebral column. From the thermopile run wires which carry the weak electric current (always generated when a thermopile is subjected to differences in temperature) to a galvanometer. The latter, presumably, can be brought around so that the victim can see the pointer move over the dial. When the pointer stands at zero, it indicates a perfectly normal spinal column; when it swings to the right or left it is registering a "subluxation"! The economic possibilities of this device are surely unlimited. The thermopile part of the instrument is said to be made at the Palmer School of Chiropractic. Like Abrams' "Oscilloclast," the Neurocalometer cannot be purchased; it can only be leased. Like the Oscilloclast, too, it is sealed and the lessee signs a contract not to break or tamper with the seals. The "established price" of a lease of the Neurocalometer is \$2,200 — \$1,000 cash at the time the contract is made and \$10 a month for ten years. This makes Abrams' disciples look like pikers. As a special "introductory price," operative until July 1, 1924, these instruments will be leased for \$1,200, of which \$600 cash must be paid at the time of signing the contract and \$5 a month paid for a period of ten years. After July 1, 1924, it will be \$750 cash and \$6.25 a month for ten years. There are numerous restrictions imposed on those who would lease this device, of which the least onerous is that requiring the lessee to charge his patient \$10 for a Neurocalometer reading. It is necessary, for the would-be lessee to declare what degree he holds, from what school or schools he graduated, and whether his degrees and graduation were from "residential" or "correspondence" courses. No other college of chiropractic will be able to lease a Neurocalometer for class instruction, and, as a further means of boosting attendance at the Palmer "school," those who are considering taking up chiropractic as a trade are told that if they matriculate or enroll in any school except the

Palmer School on or after September 1, 1924, they will not be eligible to lease a Neurocalometer. The Palmer School of Chiropractic says that while the Neurocalometer "will not give electronic reactions of syphilis from the blood of a chicken," it "proves hot boxes." Altogether, the Neurocalometer should come up to the fondest expectations of its sponsors. It will be a great business getter for the Palmer School of Chiropractic; it will bring in a handsome income to that institution and to the chiropractors that rent the device. And the ever gullible public will pay the bill.—*Jour. A. M. A.*, July 12, 1924.

PUBLIC HEALTH NURSING

We have had occasion to refer to the officiousness of some nurses operating under Red Cross, health boards or other organizations, and to condemn the tendency on the part of not a few of those nurses to assume the function of a doctor by attempting to diagnose disease or even prescribing for patients. It is admitted that there are many public health nurses acting under the organizations mentioned who are doing wonderfully effective work, and whose operations are above criticism. On the other hand, there are those who regularly overstep the rules under which they are supposed to operate and dishonor all rules of propriety as well. Sometimes this is due to lack of knowledge as to limitations, and sometimes it is due to a natural tendency to overofficialness.

The American National Red Cross intends to conduct its work along the most approved lines and is deserving of the highest commendation for that determination. In other states as well as in Indiana much criticism from the medical profession has followed in the wake of certain types of public health nursing, and it is quite possible that more good would be accomplished if the medical profession and the various organizations that have to do with public health nursing could get together in enforcing a policy that would be mutually beneficial and do away with much of the friction that at present exists.

Concerning the place of the nurse in public

health work, we note the following from the Red Cross director of such work:

"In spite of the fact that both workers, public health nurses and practicing physicians, are seeking exactly the same goal by parallel roads, there exists in some places a lack of sympathy between the two groups which I am convinced is based on misunderstanding. Doctors who are not thoroughly familiar with the ways of public health nurses may fear that these nurses are in the habit of diagnosing, prescribing drugs, giving treatments and of committing various other ethical transgressions. The principles observed by every reputable public health nursing agency may be stated as follows:

"(1) Public health nurses do not diagnose, do not prescribe drugs and do not give treatment without a doctor's orders.

"(2) Public health nurses do not give nursing care after the first visit without a doctor's orders.

"(3) Public health nurses do not recommend individual doctors but advise patients to go to their family physician.

"(4) Public health nurses do not recommend that patients change doctors or seek hospital care when they have a family physician.

"It is probable that an occasional public health nurse who has not had the advantage of adequate preparation for her work, and

who is not thoroughly trained in these principles, oversteps her prerogatives. No doubt, too, there are nurses now and then who wilfully disregard these principles. These, however, are few in number and do not represent the profession at large. The whole body of public health nurses should no more be judged by these miscreants than should the profession of law by the shyster lawyers or the profession of medicine by its less reputable members."

LEGAL EXPENSE IN MEDICAL DEFENSE

We don't mind saying that the medical defense feature of our Association has been in existence for a number of years and proven highly beneficial. Up until recently the cost of operation has been reasonable, but within the last year or two

Reserve Hotel Accommodations

For the Indianapolis Session

At Once

Write Dr. C. R. Strickland, Chairman
Hotel Committee
333 Bankers' Trust Building,
Indianapolis

We expect 1,500 members to register, and an attendance of 500 or more from surrounding states.

the Association has been "stung" for some very large and unreasonable attorney fees, and it is time for the Association to take some means of protecting itself from the extortionate charges of lawyers.

There is a peculiar feature about some of the legal fees exacted of the Association, and that is that for the most part the extortion has come from attorneys who, while well known and perhaps prominent in their individual communities, are not what would be called "big men" in the legal profession. However, they probably have assumed that in all probability only one crack at the Association in a life time would be enjoyed and that, therefore, charging a large fee is quite the proper thing. In a sense the Association is helpless, but in another sense it is not helpless, for some effort should be put forth to have an agreement in advance as to what is to be paid for legal services, and the fee should be in keeping with an average of the fees that have been paid by the insurance companies or others for similar services. The Association is willing and desirous of paying fair fees for good service but it balks at fees that even lawyers admit are extortionate. It provokes a smile to note that a lawyer of ordinary reputation or ability will present the Association with a bill for three or four hundred dollars for a few hours' work in an action that does not come to trial, and yet we fancy that the same lawyer would howl like a stuck pig if even the best surgeon in Indiana would charge him half the amount for saving his life through a surgical operation and perhaps caring for him for two to four weeks afterward.

Doctors are pikers and poor ones at that when it comes to charging for services, for a lawyer, no matter how poor he may be in qualifications or how inconspicuous he may be as to his social position, has every medical man "backed off the map" in the ability to charge for his services. Get five minutes of advice from a lawyer concerning a heavy, old, spavined mule worth not to exceed fifty dollars, and he will charge you not less than ten dollars, and he may charge you twice or three times that amount; but if a competent and well-trained physician gives the ordinary person an hour's time, for a careful and painstaking examination, including some treatment, or perhaps does a minor operation, a ten dollar charge is rated as robbery.

Consistency is a jewel, but it adorns few people.

The deputy health officer of a certain village (in Indiana) in responding to a letter of inquiry from the State Registrar as to why no birth or death report had been received from his jurisdiction, said: "We have not had a death in eleven months and we have not had a birth in the past year. Our people are too old to breed and too contrary to die."—*Bulletin Indiana State Board of Health*.

EDITORIAL NOTES

DEAR DOCTOR:

THE JOURNAL and the Cooperative Medical Advertising Bureau of Chicago maintain a Service Department to answer inquiries from you about pharmaceuticals, surgical instruments and other manufactured products, such as soaps, clothing, automobiles, etc., which you may need in your home, office, sanitarium or hospital.

We invite and urge you to use this Service.

It is absolutely FREE to you.

The Cooperative Bureau is equipped with catalogues and price lists of manufacturers, and can supply you information by return mail.

Perhaps you want a certain kind of instrument which is not advertised in THE JOURNAL, and do not know where to secure it; or do not know where to obtain some automobile supplies you need. This Service Bureau will give you the information.

Whenever possible, the goods will be advertised in our pages; but if they are not, we urge you to ask THE JOURNAL about them, or write direct to the Cooperative Medical Advertising Bureau, 535 N. Dearborn St., Chicago, Illinois.

We want THE JOURNAL to serve YOU.

REMEMBER the time, and place of the next session of our Association.

SECURE your hotel accommodations for the Indianapolis session at once.

READ the letter on Legislative Preparations in the Correspondence Department of this number of THE JOURNAL.

AN "all-star" program for an Association meeting is an innovation but it will pay. There is nothing too good for us.

THERE is an old saying that you can't catch flies with vinegar, but just the same the only way that you can make some fellows be good is by hitting them with a club.

AND now specialism has hit the ranks of chiropractors and occasionally you see the sign of a chiropractor which reads, "Practice limited to goiter." The people fall for it, too, for advertising pays.

THE *Journal of the A. M. A.* predicts the probable elimination of pneumonia within a very short time through the extensive use of specific anti-toxic serums. Within recent years the mortality has decreased as a result of our better knowledge of the nature of the disease.

IT is reported that a prominent doctor in the southwest not only visits his distant patients by airplane but often prescribed for them or gives instructions by wireless, which is an easy matter now with so many families owning a radio. "Surely the world do move."

DR. WILLIAM D. HAGGARD, of Nashville, is the president-elect of the American Medical Association. Not only is this a recognition of medicine in the south but it is an honor well bestowed, as Dr. Haggard for many years has occupied a prominent position in the medical affairs of the country.

AT present there is little discussion of politics, especially state politics, but this is to be expected, for what can any of the political parties say that will interest the people? The less said the better. Probably each and every voter has made up his or her mind already, based upon performances and existing conditions.

THE program for the annual session of our Association is about completed and offers a rare treat for those who go to Indianapolis on September 24th, 25th and 26th. The subjects are of practical importance and will be presented by prominent men in the medical profession who have had large clinical experience.

DR. G. W. H. KEMPER, one of the patriarchs of the Indiana State Medical Association, has returned from California to his home in Muncie, where he says he expects to "Live, die and be buried." However, as he is still very active at an advanced age we do not expect to publish his death notice for a long time to come.

DURING the month of June Detroit had 1,500 cases and 140 deaths from smallpox. The seriousness of the epidemic was met by the active co-operation of the citizens and nearly one million vaccinations were performed during the epidemic. Evidently the anti-vaccinationists don't get a passing look in Detroit.

NEARLY eight thousand physicians registered at the Chicago session of the A. M. A., of which number nearly thirty-three hundred were from Illinois alone and the bulk of that registration from the city of Chicago. Indiana came next with a registration of nearly five hundred, which speaks well for the progressiveness of the men of this State.

SOME of the medical journals and even one or two state medical journals supposed to be clean from cover to cover are guilty of carrying what may be called quack advertising. How can we find fault with the lay press for carrying the advertising of proprietary medicines and quack doctors when our own medical journals do not follow any better policy?

WHEREIN do some of the erstwhile members of reputable medical societies differ from the advertising quacks and charlatans whom we look down upon, when methods of exploiting themselves are the same? How long are we going to overlook flagrant breaches of ethics and ordinary propriety which form the rules of conduct for the better element in the medical profession?

ALREADY the chiropractors are beginning their political campaign. It is a species of gumshoe

work, but sometimes that brings results. It is just as well for regular members of the medical profession to realize that they, too, must take a hand in politics. The influence of one regular physician will counterbalance the work of ten chiropractors if intelligently applied. The question is, will the regular physicians get busy?

EVERY time we look over a copy of *Hygeia* we feel like saying "marvelous." It is a journal of individual and community health that is absolutely trustworthy, and every American family should have a copy regularly. For most of the people *Hygeia* will do as much good as the Bible if read regularly. The trouble of it is the lay public hasn't learned of its value, and it is up to the medical profession, individually and collectively, to acquaint the public with its merits.

EVIDENTLY the Palmer School of Chiropractic which is supplying the wonderful neurocalometer to its graduates on a large initial payment and subsequently large rental is going to have competition, for now another chiropractic institution has devised and put into the hands of chiropractors a similar apparatus, and we may expect that there will be keen rivalry between the different schools of chiropractic in securing business. Well, they say that competition is the life of trade.

THE history of medical practice in Illinois is being prepared by a committee representing the Illinois State Medical Society. The attention of former Illinois doctors is called to the matter through a letter published in this number of *THE JOURNAL*. Such an undertaking is a task that would try the patience of Job, and we shall look forward with considerable interest to the completion of the work which will cover the period from the discovery of Illinois down to modern times.

AT a meeting of the State Board of Health with a committee from the Indiana State Medical Association, June 25th, in Indianapolis, it was decided that in the future when tests are made at the State Board of Health's laboratory, a notice that the examination was made without charge, will be sent to the patient. This policy was agreed to following complaints that some physicians who had had tests made charged the patients for the tests.—*Journal of the A. M. A.*, July 12, 1924.

MOST of the doctors have an idea that all they have to do to accomplish something is to go to their society meetings and pass a set of resolutions by unanimous vote, thus indicating that all of the doctors in the community are for or against something. As a matter of fact this does not amount to a hill of beans, for some scalawag with a glib tongue and gumshoe political tactics can offset the whole thing by a heart-to-heart talk with

the "powers that be." This is thrown out as a suggestion.

A CONFERENCE will be held in Chicago this month for the purpose of drafting laws for the regulation of those who would treat the sick, to be submitted to the state medical organizations for their suggestions and criticisms with the view of securing, eventually, a uniform medical practice act throughout the United States, with such slight variations as will be necessary to meet local conditions. Every member of the Indiana State Medical Association should give this movement his whole-hearted support.

CORN parers, phrenologists, chiropractors and quacks of every description either append the word "Doctor" to their names or at least encourage the public to use such appellation. It would not be a bad idea for medical men to be satisfied with plain "Mr.," an appellation that is honored highly among some of our English confreres, with the practice of adding the "M.D." to official signatures. It turns the stomachs of some medical men to be called "Doc" along with the horse doctor, the chiropractor and the Indian medicine vendor.

EVERY medical man in Indiana, whether a member of the Indiana State Medical Association or not, should arrange to attend the annual session of the Indiana State Medical Association to be held in Indianapolis on Wednesday, Thursday and Friday, September 24th, 25th and 26th. The program will be presented by medical men from outside the state, all of whom are leading teachers and clinicians. It will be a wonderful scientific feast. Do not forget that reputable medical men in surrounding states also are invited most cordially to attend the session.

It has been suggested by our Legislative Committee that the members of our Association should place in the hands of candidates for the Indiana legislature copies of several articles recently published in well known lay publications covering the question of quack doctors and their methods and reasons why there should be a high standard of educational requirements for the practice of medicine. The suggestion is worth following. Get busy and give the aspiring statesman some suggestions which will help to influence him to vote intelligently.

THE great demand for cheap furs has led to the development of many substitutes made by complicated dyeing of cheap hides. In many instances dermatitis has resulted from wearing these imitation products. According to investigators in this field quinone is the main trouble-maker. This substance is formed when paraphenylamin-

diamin and related substances are used in dyeing. Quinone may be formed if the temperature of the dyeing vat becomes too low. It remains as a dry powder on furs not sufficiently washed, and so produces a dermatitis on those who sew or wear the fur.

THE library of the American Medical Association has been supplying to the subscribers of *The Journal of the A. M. A.* lists of references on medical subjects. Foreign and domestic journals are loaned for a few days, and recently arrangements have been made to extend this service in the form of a package library consisting of reprints and pages from periodicals which will be loaned for a few days, at a nominal cost to cover postage and expense of collection. The library does not promise to furnish a complete collection of references on any subject, but can be of considerable service in furnishing the more important books or periodicals.

AND now it is an "absolute cure" for hay fever, but the manufacturers who are soliciting members of the medical profession do not say anything about the nature of the "cure," though they take particular pains to require that every doctor contribute ten dollars for it. Our advice to doctors who feel tempted to bite at the bait is, do not do it until the manufacturers tell the nature of the cure and the exact constituents together with the amount of each drug employed. Better still, do not use the "cure" unless it has been approved by the Council on Pharmacy and Chemistry of the A. M. A., whose approval can be obtained if it is as represented.

IN all probability over fifteen hundred members of the Indiana State Medical Association will register at the Indianapolis session. Aside from those who will register there will be a large attendance from surrounding states in response to the invitation that has been sent out. Indianapolis is accustomed to caring for convention crowds but nevertheless those who expect to attend the coming session of our Association will be wise if they immediately reserve their hotel accommodations. The chairman of the Hotel Committee, Dr. C. R. Strickland, Bankers Trust Building, Indianapolis, will give assistance to those who desire it.

THE government has made an attempt to care for the disabled soldiers of the World War, but it is a shame to note the manner in which some of them are exploited by dishonest and incompetent doctors who in some manner have been appointed to care for these luckless victims. It is not an uncommon thing to have some disabled soldier advised to have an operation for a disability that does not need such attention, and for fear of

losing standing in efforts to secure appropriate attention and perhaps compensation the verdict is accepted. We have been hearing a good deal about an investigation of the Veterans' Bureau, and certainly some phases of the medical and surgical end of it deserve special attention.

How many of our medical friends have had the experience of rendering professional services for many years to people in moderate means at a reduced rate only to discover later that those same patients have paid large sums of money to chiropractors for the unsuccessful treatment of a comparatively simple and curable ailment. Come to think about it, is there any one outside of the ranks of the reputable medical profession who has any charity for the sick and suffering or for that matter exhibits any interest in them except to get out of them all they can? The worst feature of it is that we get little or no credit for our philanthropy other than that which comes from a clear conscience and the satisfaction of having rendered real service.

WHAT a pity it is that so much money is wasted upon duplication of effort. We have in mind the work that is being done by a very large number of agencies in the promotion of individual and community health. Logically, education concerning health should come from our paid bureaus, such as our National Public Health organizations or our State Boards of Health, but if these agencies are not covering the ground thoroughly or need any assistance why not come to their aid with constructive assistance instead of spreading it out over hundreds of lay organizations as at present. This matter is worthy of serious consideration when professions and public are asked to give financial or other support to the various enterprises that are trying to improve individual and community health.

VERY recently a conversation in a specialist's office was as follows:

Patient: "I have been deaf in my right ear for several months. Dr. S—(general physician) in removing a foreign body from my ear punctured my drum and destroyed my hearing."

Specialist: "How do you know that your hearing was destroyed in that way?"

Patient: "Because Dr. T—(another general physician and competitor in same town) told me that my hearing had been destroyed by Dr. S— and that I ought to sue him for damages."

Specialist: "Did the second doctor who gave you this advice give you any attention?"

Patient: "Yes, and he said if he hadn't treated me I would have been deaf in the other ear also."

And yet we expect the public to have confidence in both our ability and our honesty.

WE often have wondered why the anti-vivisectionists spend so much time and money in furthering their propaganda of misrepresentation concerning vivisection. Certainly nothing they have done has been of any benefit to humanity, and had they accomplished their purpose in preventing vivisection much harm would have been done to the progress of scientific medicine, which unquestionably has saved lives and prolonged health. It has occurred to us that some of the anti-vivisectionists are nursing a private grievance and that others are just plain dishonest in their adherence to objections that are inconsistent and inhumane. The sum total spent in efforts to prevent vivisection amounts to hundreds of thousands of dollars. Think of what that money would do if employed in benefactions for humanity.

IT is just a little disgusting to us to note that so much of the literature on health and how to preserve it emanates from organizations that have few medical men connected with them, and that the propaganda distributed by such organizations has not been written by nor shows evidence of having been endorsed by medical men. It is an undeniable fact that many lay people are having much to say concerning the preservation of health, and we wonder upon what they base their competency to speak and by what authority they presume to offer suggestions and advice. We harp a good deal upon the subject of educating the public, and the subject deserves serious consideration, but aren't we a little inconsistent when we permit or sanction the dissemination of propaganda that emanates from a variety of lay sources and which in many instances is not trustworthy?

WE have had occasion to call attention to the officiousness of a few Red Cross nurses and others doing public health nursing, and while the director of nursing for the American Red Cross admits that the criticism is just, yet an effort is being put forth to correct the evils that exist and the definite policies and procedures governing the Red Cross nurses is set forth in a letter published in this number of *THE JOURNAL*. Inasmuch as the officiousness of a few nurses oftentimes goes a long way toward spoiling the good effects of the organization to which they belong, it is just as well to give publicity to the fact and inasmuch as a large majority of the doctors of Indiana are not familiar with the rules governing Red Cross nursing we urge them to read the communication from the headquarters of the American Red Cross found in the correspondence department of this number of *THE JOURNAL*.

THE United States Public Health service and other agencies having to do with public health work are calling attention to the seriousness of

the smallpox situation brought about by the rapid spread of the disease in various localities of the United States. Fortunately vaccination on a wholesale scale has been practiced in all of the communities where the disease has existed to any considerable extent, and at present the disease seems to be under control. A noticeable feature in connection with all of these epidemics is that the anti-vaccinationists have little or nothing to say when smallpox is prevalent to an alarming extent in any particular community, and as a general proposition the people, even some of the anti-vaccinationists themselves, submit without a murmur to the preventive measure. This ought to speak volumes to those people who otherwise might seriously consider the anti-vaccinationist propaganda.

A NEWSPAPER in one of the Indiana cities announces that the window bathers, meaning those who wash windows for a living, have struck and expect to receive a dollar an hour for their services. The incident would not be interesting except as showing that in almost every vocation, except the professions, there is unity of purpose in the protection of the economic features connected with work. In the three leading professions the clergy is notoriously underpaid, the legal profession is able to exact extortionate fees with little or no complaint from the victims, and the medical profession is buffeted about on the sea of uncertainty as to just what compensation can be collected without encouraging opposition from patients and public. Certainly there is a screw loose somewhere, and it is confined to the question of organization and co-operation on the part of individual members of the profession in securing just and adequate returns from the skillful work that is done.

A WISE general attacks the enemy at the weakest point. We might follow the example in the fight against quackery. Publicity is the chief thing which makes quackery thrive, and from the standpoint of those who attack quackery it is the weakest point. Suppress publicity, especially that which comes through the lay press, and quackery virtually is wiped out. The pseudo-medical cults, particularly the chiropractors, are established because in the beginning we did not enforce our laws governing fitness for the practice of medicine. Now that the chiropractors are established in spite of all law we are wasting our efforts in attempting to secure new legislation which, no matter how drastic and at best a difficult and almost impossible thing to secure, will not change conditions. People are not going to wipe out the chiropractors until they are educated differently, and they are not going to be educated differently until the lay press of the country sees the necessity of refusing to be a party to deception and fraud.

OUR English confreres are having a controversy with some of the leading London papers concerning the advertising of a quack remedy for cancer. One of the leading London editors says in defense that the medical profession knows nothing about cancer and that when the profession is able to tell us what cancer is and how it can be cured, then it would be well to listen to denunciation of unorthodox remedies. The argument concludes with the statement that if a relative were dying of cancer and the doctors had offered no hope he certainly would advise the relative to try any or all of the unorthodox treatments. These arguments are misleading because the average cancer patient is very apt to take advice that is the most promising instead of attempting to secure advice that is the most trustworthy, and the quack is long on promises, short on fulfillment, and profits by the credulity of people. No real cure for cancer will require extravagant advertising in the lay press, nor will it meet with unkind reception at the hands of scientific medicine. Therefore, the editor who publishes advertisements of cancer remedies does it purely and alone for money, and he aids in the perpetuation of a swindle.

OPINION is divided still on the question of the amount of alcohol that may be prescribed as a medicine to a patient. We admit that if the law permits a physician to prescribe alcohol then the dosage should be a matter for the physicians' judgment, but we contend that a very large majority of the physicians of the United States have gotten along very well without prescribing alcohol as a medicine, and the rare instances in which alcohol may be considered as essential in the treatment of patients has been provided for by federal law. An inconsistency in the matter is the difference in the state laws. In some states absolute prohibition exists, and the physician has no recourse in his efforts to secure alcohol for his patients, and the Federal law limit as it is, is of no avail. On the other hand, in those states where physicians are permitted to prescribe alcoholic beverages according to provisions of the Federal laws, the privilege is quite sufficient to cover all legitimate demands and requirements but is shamefully abused by a lot of doctors who become nothing less than bottleggers. It, therefore, ill becomes us to ask for further exemptions when we already have all to which we are entitled and even those are abused.

How fortunate it would be if we could prevail upon newspaper editors and proprietors to refrain from publishing any information concerning alleged cures for tuberculosis, cancer, and other serious affections until after such alleged cures have been investigated by a committee of reputable and competent medical men and the treatment found to be scientific and trustworthy. In reality, sensationalism is what sells newspapers,

and editors and proprietors are interested in pecuniary profits first and sentiment afterward. On the other hand, the exploiter of a fake cure has no sentiment, and it is the pecuniary profit to be derived from exploitation of a fake that leads him to seek the services of the lay press which he adroitly secures through the implied suggestion that a great boon to humanity has been discovered. How fortunate it is that we have a department of the American Medical Association that investigates the claims concerning all so-called discoveries in the field of medicine and surgery and fearlessly reports the results whether good, bad or indifferent. Any doctor, or for that matter any layman, may obtain a trustworthy opinion concerning any alleged "cure" by writing to the A. M. A. office in Chicago.

THERE is urgent need for a radical change in the policies of our Association. The work of the House of Delegates is not always constructive, and often is inimicable to the best interests of the Association. We are opposed to the rapid fire action with which the House adopts resolutions, changes policies, or appropriates money. We will be wise if we follow in the footsteps of the A. M. A. and adopt business-like methods by having reference committees and turning every resolution or matter of importance over to them for consideration before the House takes final action. We have altogether too many perfunctory committee reports, as well as too much activity in crowding through resolutions or motions that carry weight with them but are illy considered.

There also should be a judicial committee of the Council to consider and report upon unethical conduct of Association members. If we ever are going to get anywhere in maintaining a medical profession of high ideals and principles we must begin disciplining our members for flagrant infractions of the ordinary rules of ethics and propriety.

The suggestions concerning the changing of the rules of procedure in our House of Delegates has been left to Dr. George F. Keiper, who will make a report upon the subject at the Indianapolis session.

It has been said that publicity can either make or break a man. Quackery thrives through publicity. Ivory Soap, with its slogan, "It Floats," through publicity has made a large fortune for its promoters. Airing even the minor moral delinquencies and inconsistencies of some prominent personages has served to remove those personages from high pedestals in public estimation. However, criticism should be fair, just and constructive. Petty things have no place in constructive criticism, even though the fear of it is what keeps many people following rather closely the straight and narrow path. THE JOURNAL not always has

found favor in certain quarters when dishonest, unethical or inconsistent conduct has been brought to light, and yet we feel that good is accomplished through a certain amount of penalizing that comes through publicity. In our medical profession a great moral principle is always at stake, and it is worth fighting for. It is all right to talk about soft words and a kind thought, but a good punch often accomplishes more than kind words. In fact, there has been too much pussyfooting and whitewashing and not enough disciplining and penalizing in efforts to keep our medical profession reasonably clean and following high ideals. The tendency to trample on one another's toes, to tear each other down without justification, and worse than all to pursue unethical, commercial, and even quackish methods for gain is altogether too prevalent.

IT isn't always the quack who exploits the cancer sufferer, for every once in a while a doctor, apparently in good ethical standing and affiliated with reputable medical societies, announces the discovery of some serum or other treatment for the cure of cancer and takes particular pains to secure publicity in the daily papers, well knowing that such publicity will bring cancer sufferers to him because they are willing to grasp at anything that offers hope of relief. Recently the newspapers carried an announcement concerning Glover's (Dr. T. J. Glover, of Toronto) "serum" which they reported as producing remarkable results in the cure of cancer. A few years ago this treatment was investigated by the Council of the Academy of Medicine of Toronto, and the report of that organization showed that the investigators were unable to find any evidence that would point to a cure of cancer as a result of using the serum, and other investigations about the same time showed that the serum did not even produce any improvement in cancer cases. Recently the Koch cancer cure (Dr. Wm. F. Koch, of Detroit) has been exploited in the newspapers, and that, too, received condemnation two or three years ago at the hands of a committee appointed by a local medical society in Detroit. The exploitation of these cures brought about the usual result, in that cancer sufferers are besieging their family doctors to tell them what there is in the cures that have been heralded so promiscuously by the lay press. As has been pointed out by *The Journal of the A. M. A.*, "the most pernicious feature connected with such exploitation is that of awakening false hopes in the minds of sufferers." Neither the Koch nor the Glover cures have been proven to be either scientific or reliable.

HEALING through prayer has had an inning in the courts of Crawfordsville. Under the guise of using suggestive therapeutics a "professor" from Illinois has been getting two dollars per treatment

from Indiana patients for the treatment of various ailments, and in the court trial, where the "professor" attempted to defend himself for practicing medicine without a license, testimony showed that for the most part the treatment consisted of a few gesticulations with the hands and the recitation of a verse of Scripture. Just why the "professor" did not employ absent treatment and save his car fare into Indiana was not brought out in the trial. As yet we have not learned of the verdict rendered by the jury, but we are inclined to think that the "professor" is no more guilty than a Christian Scientist, for the Christian Scientists are quite willing to let a child suffer from diphtheria and die with no other attention than that ordinarily given by the true disciple of Mrs. Eddy, who is quite content to depend upon a few well chosen passages in "Science of Health and Key to the Scriptures" to destroy diphtheria germs and save a suffocating child or to cure ingrowing toe nail, barber's itch or green apple colic. On the whole it is a hard thing to draw the line on violators of the medical law when some are punished and others equally or more guilty go free. We think that the Board of Medical Registration, and prosecutors wherever they may be, should impress upon courts, juries and the people at large that it is perfectly proper to permit any one who holds himself out to treat diseases to employ any form of treatment that in his judgment seems best, but before doing so he shall comply with certain rational educational requirements, and those requirements of necessity must cover the fundamentals of medicine including anatomy, physiology and pathology.

THE average cook in household, restaurant or hotel shuns fresh vegetables if it requires any time or effort to prepare them for the table. In consequence canned goods have a year round sale. This is unfortunate, for much of the fine flavor and the appreciation that goes with the eating of fresh vegetables is lost to the majority of people. It is a reflection upon our habits of life, and indicates a tendency to shirk everything that requires a little time and effort. The worst feature about the canned goods diet or the delicatessen store regime is the question of quality, for despite the pure food laws there are grades of canned goods that not only are of poor quality but have not been prepared with the care necessary to make them clean and nutritious. The result is that many people are putting into their stomachs a lot of indigestible stuff that leads to disturbances of general health. The worst offenders are the thousands upon thousands of young women occupying clerical positions in our cities and larger towns who try to economize by boarding themselves, and the grocery and the delicatessen store is an easy way out of getting food that either requires no cooking or but scant attention over the small one-

burner gas stove which is added to the meager equipment of the small hall bedroom. The cafeterias run by various benevolent associations, in which a good quality of food properly prepared is offered at reasonable prices, fills a real need and are deserving of encouragement and support. Not alone this, but many physicians who are called upon to give attention to pasty looking and ill-nourished females holding clerical positions will do well if they inquire fully into the dietary habits of their patients and urge upon such patients the necessity of procuring good and well-cooked food regularly three times a day instead of trying to economize by eating two poor meals, one of which is made up of a sandwich and a pickle, and an ice cream cone or a glass of soda made to suffice for the third meal.

THE Illinois State Medical Society is considering the purchase of a broadcasting station at an expense of about twenty-five thousand dollars. It is argued that radio is the last word in the dissemination of news and propaganda, as every night fifteen million persons listen to radio, and Chicago alone holds five hundred thousand radio devotees. The chiropractors already have taken advantage of this means of disseminating their doctrine and advertising their cult, and for two hours every night chiropractors fill the air from the Davenport station owned by the Palmer School of Chiropractic. In presenting the matter before the society, Dr. C. J. Whalen says that if the chiropractors can afford such an enterprise in the cause of devastating quackery, certainly the great medical profession of Illinois should incur the expenditure for the sake of truth, science and humanity. Incidentally, the question arises as to the investment feature, for it will not be long before the government will take charge of radio activities, there will be a clamping down on licenses, and then those holding broadcasting permits will find the permits more valuable a little later on than they are now.

The suggestion has been made that the American Medical Association should go into the broadcasting business by disseminating some such knowledge as at present is being given limited distribution through subscribers to Hygeia. Whether this would be an advantage or not may be questioned, but at all events with the possibility of Federal control of the air, so far as radio is concerned, and a limitation in the number of broadcasting permits, the A. M. A. has nothing to lose and under any circumstances something to gain by procuring a broadcasting station. The matter is certainly worthy of serious consideration, and to our notion it is much better for the A. M. A. to have anywhere from one to three broadcasting stations than for the state medical associations to attempt carrying on such enterprises.

HENRY FORD has some peculiar ideas and does some peculiar things. Some of us remember that he once started a peace ship to Europe and calculated that his influence, together with the influence of the peculiar minded people who went with him, would stop the war at once. That Germany's military rulers did not at once send for Henry and tell him how sorry they were that they had started a world war and promise to lay down arms at once must have been a severe blow to the flivver maker's ambition and égotism. His ideas of loyalty to country are not very strong, notwithstanding the fact that his country has been tolerably good to him in a financial way by permitting him to amass within a few years a fortune estimated at over one billion dollars. He once frankly admitted that the flag meant nothing to him, and we know that his son Edsal was so shy on loyalty to country and had such a strong aversion to military service that he managed to escape wearing the uniform in the World War and hasn't been very much affected by the appellation of "slacker" that has been given him by a majority of the boys who responded to the call to arms. The Fords cleaned up many millions on war contracts, and it is said that they announced publicly that they would return all profits to the government, but up to date no one has ever heard anything about the fulfillment of such a generous offer. In fact does anyone know of any Ford generosity that is worth mentioning? Perhaps Henry is keeping the war profits through spite because Edsal got such a bad reputation when he avoided military service. That Henry's spite work follows a variety of lines is evidenced by the building of the Ford Hospital and conducting it on a commercial basis with one price, and a low one at that, for all who come, for it is said that the reason for the building of the hospital was to get even with some doctors who charged him a little bit more than the ordinary fee for professional services rendered. The final outcome may be detrimental to the medical profession, for Henry Ford is the richest man in the world and money is not only all-powerful but in some hands dangerous to the peace of the world. It may be that the medical profession eventually will be compelled to bow in humble submission to Henry Ford, eat out of the Ford hand and punch the time clock like employees in the Ford Hospital and in the "flivver" plant, but we hope that before that time comes there will be enough organization and red-blooded action on the part of the medical profession to offset some of the socialistic and capitalistic tendencies that now threaten our well-being. The Detroit medical profession very justly criticises the policy and methods pursued in the management of the Ford Hospital, and the resentment was shown when the Detroit Academy of Surgeons declined the invitation recently extended to hold a meeting at the Ford Hospital. As explained in the Society bulletin

"the medical profession objects to having Henry Ford, a man of unlimited wealth and power, a man who controls a publication, a man of strong prejudices, practice medicine by proxy." To all of which we say "Amen."

DEATHS

FRANK E. MANKER, M.D., of Indianapolis, died June 25th, at the age of sixty-six years. He graduated from the Medical College of Indiana, Indianapolis, in 1884.

O. P. KEMP, M.D., of South Bend, died July 17th at the age of sixty-two years. Dr. Kemp graduated from the University of Illinois College of Medicine, Chicago, in 1898.

GARRETT D. LEECH, M.D., of Muncie, died May 20th at the age of seventy-six years, as the result of injuries received in a fall. He graduated from the Bellevue Hospital Medical College, New York, in 1875.

GALEN MILLER, M.D., of Twelve Mile, died July 24th, as the result of complications following extraction of a tooth, at the age of twenty-eight years. Dr. Miller was a graduate of the Medical Department of the University of Michigan in 1923.

G. M. YOUNG, M.D., of Evansville, died July 24th, at the Walker Hospital, following an illness of several months. Dr. Young was sixty-eight years of age. He was a graduate of the University of Pennsylvania School of Medicine, Philadelphia, in 1883.

H. J. MATLOCK, M.D., of Campbellsburg, died June 25th at the age of forty-three years. Dr. Matlock was a graduate of the Kentucky School of Medicine, Louisville, in 1905. He was a member of the Washington County Medical Society, the Indiana State Medical Association and the American Medical Association.

JOHN S. HUNT, M.D., of West Terre Haute, died June 29th, at the age of seventy-one years. Dr. Hunt graduated from the College of Physicians and Surgeons, Keokuk, Iowa, in 1878. He was a member of the Vigo County Medical Society, the Indiana State Medical Association and the American Medical Association.

R. B. SHORT, M.D., of Union Mills, died June 22nd, aged seventy-three years. Dr. Short graduated from the Medical College of Indiana, Indianapolis, in 1881. He was a member of the LaPorte County Medical Society, the Indiana State Medical Association and was a Fellow of the American Medical Association.

H. H. ROGERS, M.D., of Anderson, died June 27th at the age of fifty-one years. Dr. Rogers was a member of the Illinois State Medical Society, the Madison County Medical Society, the Indiana State Medical Association and the American Medical Association. He graduated from the College of Physicians and Surgeons, Keokuk, Iowa, in 1898.

GEORGE M. WELLS, M.D., of Indianapolis, died Tuesday, July 22nd, while in the water at Lake Wawasee. Dr. Wells was sixty-two years of age. Dr. Wells served in the United States Army for many years, retiring with the rank of major; he graduated from the Kentucky School of Medicine, Louisville, in 1884; from the Rush Medical College, Chicago, in 1886, and from the New York University Medical College in 1891. He was a member of the Marion County Medical Society, the Indiana State Medical Association and the American Medical Association.

NEWS NOTES AND PERSONALS

Anything in the line of physicians' supplies or equipment may be obtained from advertisers in THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION. Patronize these advertisers, for it means a continuance of their advertising patronage, and the latter means a larger and better Journal for you.

THE Ella B. Kehrler Tuberculosis Hospital, at Anderson, was formally opened June 29th.

DR. AND MRS. A. W. BRAYTON, of Indianapolis, observed their golden wedding, June 29th.

DR. GOETHE LINK, of Indianapolis, has been reappointed a member of the city board of health for a four-year term. His term expired June 1st.

THE Wabash County Medical Society held a meeting at Lafontaine, July 17th. Following a chicken dinner, Dr. Frank Cregor, of Indianapolis, presented a paper.

THE Vanderburg county council has voted \$150,000 worth of bonds for the improvement of Boehne camp, the tuberculosis sanitarium a few miles west of Evansville.

DR. CARL F. BRIGGS, and Miss Ella Anderson, both of Sullivan, were married recently at Indianapolis. They will return to Sullivan following a month's stay in Michigan.

NURSES, interns and members of the staff of the Methodist Episcopal Hospital, of Indianapolis, were the guests of Dr. and Mrs. David Ross at a picnic at the Ross country home on White River, July 24th.

THE Kosciusko County Medical Society held its regular monthly meeting at Silver Lake, July 15th. Dr. C. R. Long presented a paper on "Rhus Poisoning" and Dr. W. B. Siders presented a paper on "Significance of Blood and Pus in Urine."

DR. FOSTER J. HUDSON has opened offices in the Medical Arts Building at Indianapolis for the special practice of obstetrics. Dr. Hudson recently has completed two and a half years' work in the Philadelphia General and New York Lying-In Hospitals.

In addition to the articles already enumerated, the following have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association:

Manhattan Eye Salve Company:

Butyn Ointment-M. E. S. Co.

Holocaine Ointment-M. E. S. Co.

THE American Institute of New York City will hold an exposition of inventions in the Engineering Societies Building, New York City, December 8th to 13th inclusive, 1924. Arrangements for the display of working models or actual devices at the Exposition of Inventions can be arranged through a Committee of the American Institute at 47 West 34th Street, New York City. All proposed displays are subject to approval by the Institute.

THE United States Civil Service Commission announces open competitive examination for Physiotherapy Aide and Physiotherapy Pupil Aide to be held throughout the country on August 6th and September 17th, to fill vacancies in the Public Health Service and in the Veterans' Bureau throughout the United States. Full information and application blanks may be obtained from the United States Civil Service Commission, Washington, D. C., or the secretary of the board of United States civil service examiners at the post office or custom-house in any city.

GOLF enthusiasts will have an opportunity to try their luck and skill at the annual session of the Indiana State Medical Association to be held in Indianapolis in September. On account of the arrangements of the scientific program, it is necessary to hold the tournament for doctors on Tuesday, September 23, 1924, at the New Highland Golf and Country Club. The greens fee is for the whole day though the main tournament is in the afternoon. Those wishing to familiarize themselves with the course are invited to play a practice round on Tuesday morning. The tournament consists of eighteen holes. Lunch will be served at the Club Tuesday noon for those who desire it, and the business meeting will be held

at that time. All members of the State Medical Association are invited and any who have not previously joined the Golf Club are quite welcome to take part and be one of the fellows.

CORRESPONDENCE

FORMER ILLINOIS DOCTORS— ATTENTION

To the Editor of the Journal:

Any and all doctors, former residents of Illinois, or descendants of pioneer physicians of the "Illinois country," are asked to communicate at once with the Committee on Medical History, Illinois State Medical Society, No. 6244 North Campbell Avenue, Chicago Illinois.

Under the sponsorship of the Illinois State Medical Society there is in preparation "A History of Medical Practice in the State of Illinois" that must go to the printer at any early date. In order that this volume may be accurate and complete, all possible assistance is asked for every source, as to personal data and experiences, including diaries, photographs and similar documentary momentos of pioneer Illinois doctors and of progressive phases of medical practice, as well as of achievements in fields other than those of medical science. Prompt return in good condition is promised for anything loaned the committee, the personnel of which is:

O. B. Will, M. D., Peoria, Ill.

C. B. Johnson, M. D., Champaign, Ill.

Carl E. Black, M. D., Jacksonville, Ill.

George A. Dicus, M. D., Streator, Ill.

James H. Hutton, M. D., Chicago, Ill.

Chas. J. Whalen, M. D., Chicago, Ill., chairman.

The scope of the volume will range from the discovery of Illinois to modern times. Through this period of over 250 years there is much of thrilling interest to be detailed. Collection of the human interest data can come only from the families or closest friends of the pioneers, many of whom long ago removed to distant sections of the United States. Through the kindness of editors of various medical journals, it is hoped to reach those who may be able to loan valuable material to the compilers who guarantee careful guardianship of anything sent for publication.

Some of the subjects touched will be: Physicians accompanying early explorers; government surgeons and physicians in attendance at the forts; early medicine in Illinois; theories of healing from the days of the Aborigines through the mound-builders; French and English explorers; the ante-boundary days; sporadic settlers; medical attendants for the covered wagon; herb doctors; primitive surgery; medicine and missionaries; migration of pioneer physicians to new territory; "the circuit-riding" and "saddle-bag" doctors and their burdens, triumphs and perils; pioneers as "utility citizens"; Illinois men in war time—there are four conflicts to be considered since the opening of the nineteenth century; Illinois medical men away from medicine, i. e., in industry, in science, in belles-lettres—art, music and literature.

Photographs especially are desired. Also copies of letters, statements of "cures" and "new methods," diaries and the like.

Very truly yours,
THE COMMITTEE ON MEDICAL
HISTORY,

CHARLES J. WHALEN, M.D., Chairman.

RED CROSS POLICIES

The American Red Cross,
National Headquarters,
Washington, D. C.
June 27, 1924.

Editor THE JOURNAL:

In THE JOURNAL OF THE INDIANA STATE MEDICAL AS-

SOCIATION of May 15th, there is an editorial referring to the officiousness of Red Cross nurses and other public health nurses working in the schools in Indiana. We agree with the writer in condemning nurses who give parents tentative diagnoses of their children's defects and who state the type of treatment they believe to be needed.

The American Red Cross endeavors to maintain a high ethical standard throughout its Public Health Nursing Service and to prevent just such transgressions as are described in this editorial. To this end it has formulated certain definite policies and procedures to govern the work of its nurses. In "Information for Chapters and Branches Concerning the Organization of a Public Health Nursing Service," it states:

"It is axiomatic that neither the nurse nor any other Red Cross worker diagnoses, prescribes or gives medicine or surgical care except under doctor's orders.

"The following principles now governing Chapter procedures which relate to the medical profession are approved by us:

"1. The nursing of patients shall be carried on only under the direction of a licensed physician.

"2. In advising relative to securing medical or surgical treatment the Red Cross does not choose between individual licensed practitioners. Such choice must be left to the individual patient or to his family.

"3. The Red Cross advises with reference to securing special medical and surgical treatment only after consultation with the physician where one is available.

"Chapters which employ public health nurses should request the Medical Society or the local physicians as a group to endorse standing orders which the nurse should follow in giving nursing care on her first visit to a patient if the patient has no doctor, or if the nurse cannot get in touch with the patient's doctor.

"It is understood that such orders do not authorize a nurse to continue giving nursing care after the first visit if there is no doctor in charge, and that the nurse will make every effort to get in touch with the doctor in order to secure his specific instruction in person.

"The Medical Society should also be asked to decide to whom the nurse shall refer indigent patients for diagnosis and treatment in the absence of a public physician for the poor; and to say what the nurse is to do if a patient having no family doctor and no knowledge of local doctors asks for suggestion as to medical care."

In order to make sure that they shall not appear to diagnose or to suggest specific treatment, American Red Cross school nurses in notifying parents of their children's condition use a Notification Slip worded as follows:

"Physical inspection of _____ attending _____ school, seems to reveal an abnormal condition of _____.

"We recommend that you seek the advice of your family _____ for diagnosis, advice and treatment. Please show this slip to him."

The nurses are given the following instructions for the use of this notice:

"The Notification Slip should be made out for each child showing an abnormal condition and given to the child to take home to the parents or guardian. Care should be taken that no phrase is used which would suggest a diagnosis, but simply to describe conditions found as, 'seems to reveal an abnormal condition of the ears', not 'Otitis Media'; 'of the eyes,' not 'Myopia'; 'of the throat,' not 'enlarged tonsils.' If a doctor examines the child and signs the Notification Slip himself, he may prefer to give the diagnosis. * * *

"When and only when the nurse has been authorized by the Board of Education or the Board of Health to exclude children showing symptoms of a contagious disease from school, this same form may be used for a Notification of Exclusion by crossing out the word 'not' in the statement at the top of the slip thus, 'This Notice Does (Not) Exclude Child From School,' and by crossing

out the word, 'abnormal condition of,' and writing 'symptoms of a contagious disease.'

With regard to the authority of the health officer and superintendent of schools, the American Red Cross gives its chapters and personnel these instructions:

"It should be regarded as an essential principle by the Red Cross that all health work undertaken shall be carried on only with the knowledge and approval of * * * the locally constituted health authorities of county, city or town. It should be considered a primary responsibility * * of the Chapters to consult with local departments of health before engaging in any new health activities and to keep such departments regularly informed. It is desirable, wherever possible, that the local health officer should be an active or co-opted member of each Red Cross Chapter Executive Committee."

* * *

"Especially is it important that the educational group be represented—probably its best representative will be the county superintendent of schools. However that may be, it should be remembered that authorization for all work in the schools must be obtained from the school authorities before school work can be undertaken.

"Although the chapter is responsible for the nursing service and decides how much and what part of the nurse's time may be devoted to school nursing and what relation this special phase shall have to the rest of the nurse's work, each superintendent bears the responsibility for all work done in his schools. Only with his authority may the nurse enter the school and all her activities in or in behalf of the school must have his approval. A mutual agreement concerning the plan for school nursing is therefore essential. Should the school health work be under the jurisdiction of the county or city health officer, he should take part in working out this plan."

We appreciate your statement that "there are some school nurses who do not attempt to assume the functions of a medical man and really are performing a valuable service in promoting public health in our schools." We believe that a large majority of the Red Cross public health nurses are in this group. We also agree with you that there are, unfortunately, nurses who sometimes overstep their authority. We deplore this as much as you do. We think, however, that such nurses are very much in the minority and we hope eventually to eliminate them entirely. In the meanwhile, we urge county medical societies to invite Red Cross chapters which are conducting public health nursing services to meet with them for the discussion of Red Cross policies and procedures in school nursing. We feel sure that our chapters will welcome such an opportunity to obtain the counsel of the medical societies.

Yours sincerely,

ELIZABETH G. FOX,

National Director Red Cross Public Health
Nursing Service.

LEGISLATIVE PREPARATIONS

Warsaw, July 29, 1924.

Albert E. Bulson, Jr., M.D., Editor JOURNAL INDIANA
STATE MEDICAL ASSOCIATION,
Fort Wayne, Indiana.

My Dear Dr. Bulson:

Lives there a physician in Indiana with soul so dead—Oh! that was a lapsus calami! Seriously, lives there a physician in Indiana who is not keenly, vitally interested in what our legislature will do in 1925?

Here are some of the preparations that have been made:

1. The house of delegates at Terre Haute adopted a general plan.
2. Ideas have been requested, received and assimilated by our State Committee on Legislation.
3. You have published Dr. Cregor's five important postulates and other reports from the State Committee on Legislation.

4. Medical Legislative Committees are now functioning in nearly every county in Indiana.
5. The Bureau of Publicity of the Indiana State Medical Association has been busy.
6. Many of the newspapers throughout the state are co-operating with this Bureau.
7. The Bureau has staged a number of public meetings.
8. You have run editorially a series of rapid-fire comments on the situation.

COLLATERAL READING

(a) *The Journal of the American Medical Association* for June 28, 1924. Article by Wells P. Eagleton, M.D., president of the New Jersey Medical Society.

Recites how over one thousand physicians gathered at the State House of New Jersey.

(b) *American Medical Association Bulletin*, Part 2, June, 1924, by Harry Eugene Kelly of the Chicago Bar. Recapitulates all the arguments.

(c) *Ladies' Home Journal* for July and August, 1924, "Fake Doctors."

You are interested. I am interested. We all are interested.

Here is one actual definite thing each Indiana physician can do right now! Each one can help his county legislative committee to put into the hands of every senator and representative a copy of (b) under Collateral Reading listed above. In this way there will be time for the candidate to thoroughly digest the facts in his leisure moments.

Cordially yours,

C. NORMAN HOWARD.

ABSTRACTS

THE USE OF GENTIAN VIOLET IN DIPHTHERIA CARRIERS

If gentian violet in very weak solutions has a pronounced bacterial action on gram-positive organisms in closed cavities or passages, such as the chest, kidney, bladder and urethra, it seems entirely logical to J. Shelley Saurman, Salem, Ore. (*Journal A. M. A.*, July 26, 1924), that it should have such an action on the same class of organisms in the throat and nose, especially when the dye can be used in a much stronger solution than is possible when given intravenously. The method, used by him is very simple. It is, however, absolutely essential that the nurse or some member of the family be instructed how to direct properly the spray so that it reaches every part of the fauces and the nares, and to demonstrate this to them in person. The patient, on awakening, and immediately after the three main meals of the day and once during the evening, should have the nares and the fauces well flushed and cleansed with a light saline solution, to rid this region of as much mucus as possible. This may be done by a spray or by douching by the patient or by an attendant. Immediately after this, the nares and fauces are well sprayed with a two per cent aqueous solution of gentian violet in the ordinary atomizer. After each spraying, the fauces should be inspected to see that the dye has reached every part that can be seen. It is suggested that the cultures be taken at some time during the day, immediately before one of the local treatments. As a check, after two negative cultures have been received, the dye should be discontinued, and, forty-eight hours later, another culture made. This was done in four cases, with negative cultural findings. If it is satisfactorily proved that these throats remain free of the diphtheria bacillus, the last procedure, of course, would not be necessary. The patient and family should be informed that the dye, though staining everything with which it comes in contact, will not leave any permanent discoloration of the skin, mucous membrane or teeth.

EFFECT OF FREEZING ON DIPHTHERIA TOXIN-ANTITOXIN MIXTURES

Following on the report that the administration of diphtheria toxin-antitoxin that had been frozen caused severe local reactions and constitutional disturbances, John F. Anderson and George F. Leonard, New Brunswick, N. J. (*Journal A. M. A.*, May 24, 1924), undertook investigations of the various factors that might be connected with the increase in toxicity. Fifteen lots of diphtheria toxin-antitoxin mixtures containing three L + doses of toxin, prepared with a highly refined globulin in which 0.3 per cent. tricresol was used as a preservative, showed no increase in toxicity after freezing. Eight lots of diphtheria toxin-antitoxin mixture, prepared with a highly refined globulin, containing one-tenth L + dose of toxin, 0.3 per cent. tricresol being used as a preservative, developed no increase in toxicity after freezing. Mixtures of diphtheria toxin-antitoxin prepared as stated above became, on the average, less toxic after freezing. Mixtures prepared with three L + doses of toxin, with 0.3 per cent. tricresol and made with an antitoxin that had been concentrated without the use of heat, showed an increase in toxicity after freezing. Diphtheria toxin-antitoxin mixtures prepared with unconcentrated antitoxin with three L + doses of toxin, 0.3 per cent. tricresol or 0.5 per cent. phenol being used, increased in toxicity after freezing. Diphtheria toxin-antitoxin mixtures similarly prepared, one-tenth L + dose of toxin being used, showed no increase in toxicity after freezing. Diphtheria toxin-antitoxin mixtures prepared with unconcentrated antitoxin, with three L + doses of toxin, chlorbutanol or chloroform being used, or without preservative, showed no increase in toxicity after freezing. Diphtheria toxin, after freezing at minus 5 C. for forty-eight hours, showed a decrease in toxicity. In the mixtures prepared with unconcentrated antitoxin containing three L + doses of toxin, with tricresol as a preservative, and subsequently frozen, there became disassociated approximately twenty-minimal lethal doses of toxin. This free toxin was neutralized by the addition of diphtheria antitoxin or the simultaneous administration of antitoxin, so that acute death was prevented; but paralysis and local reactions sometimes developed.

EFFECT OF EXPOSURE TO LOW TEMPERATURES ON DIPHTHERIA TOXIN-ANTITOXIN MIXTURE

In two towns in Massachusetts, two different lots of diphtheria toxin-antitoxin mixture, after having suffered prolonged exposures to unusually low temperatures, were injected into a total of fifty-four children for the purpose of immunizing them against diphtheria, and produced severe reactions in forty-two of them. Both the local and the systemic reactions were typical of diphtheria intoxication. All the facts strongly suggested the hypothesis that the exposure to temperatures below freezing had caused the antitoxin to dissociate from the toxin, leaving free toxin present in the mixture. In order to determine the validity of this hypothesis, the experiments reported on by Benjamin White and Elliott Robinson, Boston (*Journal A. M. A.*, May 24, 1924), were carried out. Briefly, the results were: The exposure of toxin-antitoxin mixtures to temperatures of 10 F. or less for periods of six hours or more causes a turbidity which arises from the separation and precipitation of antitoxin and, possibly, other substances. In the case of one L + mixture there is associated with the physical change an increase of toxicity due to freed toxin.

TRAUMATIC INJURY OF THE RECTUM

The unique features of the case reported by W. B. Marbury, Washington, D. C. (*Journal A. M. A.*, May 24, 1924), were that all the muscles about the rectum

were torn and retracted, leaving the intestine intact; rupture of the urethra, and fracture of the descending ramus of the pubes. A boy, aged 4 years, while riding on the running board of a truck, was thrown as the truck entered an alley, and crushed between it and the side of a brick wall. He was brought to the emergency hospital. The abdomen was slightly distended and tender in the region of the bladder. About the rectum, running anteriorly, there was a laceration, which seemed to go through the sphincter. There was much bleeding, some of which appeared to come from high up in the rectum. On further examination it was found that the laceration at the rectum included both sphincters and part of the perineal raphe. The finger could be passed upward anterior to the mucous membrane of the bowel, and the sharp edges of the broken ramus on the right side could be felt. Also the urethra was torn in this region, and urine was passed through the opening. Whenever the patient's legs were moved in any way, he experienced great pain in the region of the symphysis. Operative repair was made, and in spite of the fact that considerable damage was done to the bony pelvis, there was little disability.

DIATHERMY IN INTERNAL MEDICINE

Diathermy is the only method whereby it is possible to apply physiologic heat to tissues beneath the surface. Edward W. Jackson, Rochester, N. Y. (*Journal A. M. A.*, July 26, 1924), has given 1,470 treatments to sixty-one patients, divided among the various body systems as follows: circulatory, 526; nervous, 266; respiratory, 54; joints, 352; muscular, 223, and urogenital, 39. He has found diathermy of value for the reduction of arterial hypertension, but sedative baths under carefully prescribed conditions are equally helpful. Diathermy has given symptomatic relief in many painful conditions more promptly than other therapeutic resources. It is recommended that diathermy be studied in hospitals and large clinics to define its scope, indications and limitations.

RUPTURE OF AN AORTIC ANEURYSM INTO THE SUPERIOR VENA CAVA

Two cases of rupture of an aortic aneurysm into the superior vena cava are reported by Laurence H. Mayers, Chicago (*Journal A. M. A.*, July 19, 1924). The most striking and self-evident points for diagnosis are the edema, the extreme cyanosis, which, as a rule, suddenly involves the face, neck and upper thorax, including at times the arms and thorax in the waistline, and the turgescence of the veins emptying into the superior vena cava. This points to superior caval obstruction, but does not establish its cause. A study of the facts brought out by a careful physical examination, along with the information obtained from the roentgen-ray examination and the Wassermann reaction, when it is possible to obtain these, furnish the data that will establish the cause of the obstruction to the return flow in the superior vena cava. If these data establish with reasonable certainty the presence of an aneurysm, the extreme cyanosis and edema may be safely attributed to a rupture of this aneurysm into the superior vena cava. The presence of a murmur may serve to clarify or obscure the diagnosis. When a continuous blowing murmur with systolic exacerbation is heard over the tumor mass, it is of great diagnostic importance. Any treatment instituted must be directed to the relief of the patient's extreme distress. A single case is recorded in which the patient lived long enough for collateral circulation to be established. The average life duration after rupture of the cases reported is fifteen days. From a few hours to a few days measures the life expectancy of most of the patients. Repeated bleedings seem to afford temporary relief. Opiates for the extreme restlessness and the severe cough are indicated. The two cases reported here bring the total to forty-seven.

PRINCIPLES OF THE FOUR TYPES OF SKIN GRAFTING

The most efficient method of treating total avulsion of the scalp in the opinion of Clarence A. McWilliams, New York (*Journal A. M. A.*, July 19, 1924), is: immediate surgical cleansing of the raw area; shaving and surgical cleansing of the avulsed scalp (the hair being saved for a future wig); drilling of the bare bone in numerous places into the diploe, followed immediately by the covering of the entire raw area with Thiersch grafts taken from the avulsed scalp. McWilliams says: In this way time is saved, and suppuration is diminished. The totally avulsed scalp should never be replaced, since it never lives. Of all types of skin grafting, autogenous Thiersch grafts are the most successful, and of the widest applicability. Their disadvantage is the subsequent contraction. Isografts should never be attempted, because they are usually unsuccessful. Autogenous, free, full-thickness, nonpedicled flaps are somewhat less successful but well worth a trial, provided care is taken in selecting the case and the minutiae of the technic is studiously followed. Fresh operative wounds are most favorable, particularly if the base is muscle, while fat as a base is most unfavorable. Contraction of the graft is slight, but a disadvantage is the subsequent pigmentation. All subcutaneous fat should be carefully trimmed off the graft with scissors. The transplant should be punctured in numerous places with Carrel's punch, and very firm, even pressure (most important) should be applied to all the surface of the graft by the subsequent dressing. Pedicled flaps are uniformly successful, provided there results no necrosis of the end of the flap. The flap may, at a preliminary operation, be elevated and freed and then sewed back in place, thus awaiting the onset or absence of necrosis before the flap is transplanted into its final position. These flaps should contain the subcutaneous fat on them. One may graft eyebrows with permanence of their hair most successfully by taking half the opposite eyebrow and transplanting it with a pedicle. Slightly less successful are free, full-thickness slips taken from the hairy scalp. It is very important to observe that, in contradistinction to free, full-thickness grafts, with which the firmest subsequent pressure is essential, pressure on pedicled flaps should be only moderate, as otherwise necrosis will result from the obstruction to the blood supply through the pressure on the pedicle. Emphasis should be placed on the subsequent contraction that takes place after Thiersch and Reverdin's graftings; hence they should not be used to cover raw areas in the neck, the axilla, cubital fossa of the elbow, or the popliteal space. In these localities, free, full-thickness skin grafts, or pedicled flaps should be used, since with these two latter types of grafting, there is no contraction. This is most important and is too often overlooked. It should also be noted that free, full-thickness grafts should have no subcutaneous fat on them, since their circulation is obtained from the raw base, and fat is a poor conductor of the circulation; while in pedicled flaps the subcutaneous fat should remain on them, since the circulation is maintained through the pedicle, and the fat forms a good movable cushion on which the skin can move freely. The only way to cure an old roentgen-ray burn is to excise widely the raw area, to sterilize it, and then to cover it with Thiersch grafts. Full-thickness grafts, whether pedicled or not, do not succeed because of the surrounding endarteritis, resulting in a deficient blood supply. It should be noted that free, full-thickness grafts should not be cut larger than the area to be filled, which will necessitate some stretching of them when transplanted: this is in contradistinction to pedicled flaps, which should lie easily and not be stretched; hence, these pedicled flaps must be cut one-third larger than the area to be filled, to allow for shrinkage. Surgical textbooks are too hazy about the results of iso-skin grafts, as well as the replacing of the totally avulsed scalp. The futility of each of these procedures cannot be too strongly emphasized. Only the partially avulsed scalp with a pedicle should

be replaced. The transplantation of sections of "monkey or other animal glands" (i. e., testes) is entirely without scientific basis, and has been exploited for commercial purposes only. This procedure, so far as its ultimate failure is concerned, is just as certain as when transplantation is made of iso-skin grafts. Both methods should be unhesitatingly condemned by conscientious surgeons.

SEROLOGIC AND CLINICAL RESULTS IN VARIOUS TYPES OF SYPHILIS

Sulpharsphenamin, a sulphurous acid ester of arsphenamin differing slightly from neo-arsphenamin in structural formula and, containing from twenty-two to twenty-four per cent arsenic instead of from eighteen to twenty per cent, has been in use by John H. Stokes and Claude W. Behn, Rochester, Minn. (*Journal A. M. A.*, July 26, 1924), in 126 cases of all types of syphilis. These patients received intramuscularly 1,360 injections, ranging from 0.3 to 0.6 gm. each. Two objectively visible reactions developed, one an infiltrated plaque, which subsided under hot applications, and the other a sterile abscess, which caused no symptoms and which the patient did not know was there. Emphasis is placed on using a thirty to forty per cent solution; on complete emptying of the 2 c.c. syringe by having a small bubble of air above the injection fluid to clear the needle, and on the use of a correct epifascial technic. Twenty-nine patients followed occupations calling for active physical work, and none were inconvenienced. Only one patient was transferred to other treatment because of a local reaction. Seven primary lesions and four patients with mucous patches were studied. *Spirochaeta pallida* disappeared from these lesions within ten hours, and in several cases within seven hours after the administration of 0.4 gm. of sulpharsphenamin, intramuscularly; this is more rapid than is usual with neo-arsphenamin. The healing of chancres was accomplished within from seven to ten days; the entire disappearance of maculopapular secondary eruptions with mucous patches took place within from three to nine days, averaging six days, which compares favorably with arsphenamin itself. In order to judge of the serologic effect of the action of the drug, the usual course of treatment in an early case was, for the first course, three injections of 0.4 gm. at three-day intervals, followed by one injection of 0.4 gm. every five days until eight injections had been given. Following the third sulpharsphenamin injections, inunctions were begun and continued in courses of eighty, bridging the arsphenamin intervals. The second, third and fourth sulpharsphenamin courses followed one another at intervals of six weeks. Thus far, the results are 100 per cent, and there have been no neurorecurrences. Equally good results were obtained in cases of latent syphilis, neurosyphilis, late gummatous syphilids, cardiovascular syphilis. The superiority of sulpharsphenamin by this route over neoarsphenamin is suggested. Simultaneous mercurialization can be successfully carried on with this drug. Three per cent of toxic reactions were observed. The authors believe that they see evidence of distinct superiority, in the treatment of neurosyphilis, over the older drugs, and distinct evidence of superiority to neoarsphenamin intravenously in all aspects of syphilis. The drug is well borne by patients with cardiovascular disorders, if used in moderate dosage. There is a distinctly increased tendency to cutaneous reaction as compared with the more familiar arsphenamins. This may be corrected by closer study of the mechanism of its toxic effects and by refinements in manufacture.

THE INDICATIONS FOR AND METHODS OF EMPLOYING HYDROTHERAPY

J. M. Anders, Philadelphia (*Journal A. M. A.*, July 26, 1924), fears that the medical profession of America bestows too little attention on the subject of hydrotherapy, more particularly, perhaps, as it is related to the treatment of chronic complaints. As a consequence, there is a lack of familiarity with the principles and technic of

hydratics. Anders limits his discussion to the indications for and methods of utilizing water in the management of acute infective diseases, such as typhoid, influenza, pneumonia, and tonsillitis, and chronic diseases such as chronic tuberculosis, neurasthenia, rheumatism and gout, valvular and myocardial heart disease, obesity and chronic nephritis. Anders is strongly of the opinion that, in all subacute types of nephritis, sudorific baths alone exercise the happiest influence by lessening renal congestion.

CLINICAL TYPES OF HYPOTENSION

Alfred Friedlander, Cincinnati (*Journal A. M. A.*, July 19, 1924), regards hypotension as being a symptom. It is not always a manifestation of a diseased bodily state. Systolic blood pressure under 110 mm. in young adults is compatible with perfect health and good bodily vigor, in some persons. The experience of life insurance actuaries goes to show that hypotensive persons in middle life have a better life expectancy than the average. The three factors that maintain arterial pressure are force and frequency of the heart beat, peripheral resistance, and blood volume. The study of the conditions affecting these factors is exceedingly involved, and satisfactory explanations of the physical and clinical influences affecting them are not altogether at hand. Hypotension may be a temporary or a persistent phenomenon. Traumatic toxemia plays a prominent part in the production of traumatic shock. This toxic factor may be histamin or some histamin-like substance. Actual myocardial weakness is not of as much importance in the production of hypotension as are disturbances of vasomotor tone and disturbances of blood volume. Histamin and other vasodilators are constantly produced in the body. As a working hypothesis, not proved as yet, persistent low blood pressure in many conditions may be due to poisoning of the capillaries by histamin or histamin-like substances. Considerable evidence has been accumulated to justify the assumption of such a view, though, admittedly, much work must be done before this hypothesis may be said to rest on the basis of established fact.

TRUTH ABOUT MEDICINES

NEW AND NONOFFICIAL REMEDIES

BENZYL FUMARATE-ABBOTT. BENZYLIS FUMARAS.—It contains not less than 99 per cent. of benzyl fumarate. Benzyl fumarate acts like benzyl benzoate and benzyl succinate in lowering the tone of unstriated muscle. Like benzyl succinate, it has the advantage over benzyl benzoate in that, because of its insolubility in water, it is practically tasteless and does not produce gastric disturbance. It is employed in the same conditions as benzyl benzoate and benzyl succinate (see *New and Nonofficial Remedies*, 1924, pp. 69 and 71). The Abbott Laboratories, Chicago.

SULPHARSPHENAMINE-METZ.—A brand of sulpharsphenamine-N. N. R. For a discussion of the actions, uses and dosage of sulpharsphenamine, see *New and Nonofficial Remedies*, 1924, p. 56. Sulpharsphenamine-Metz is supplied in ampules containing, respectively, 0.05, 0.075, 0.1, 0.15, 0.3, 0.45 and 0.6 Gm. The H. A. Metz Laboratories, New York. (*Jour. A. M. A.*, July 5, 1924, p. 41).

MEAD'S COD LIVER OIL.—It has a vitamin potency so that one-fourth of one per cent cures experimental rickets in rats in five days when added to the diet. For a discussion of the actions and uses of cod liver oil, see *Useful Drugs*, 6th edition. Mead, Johnson and Co., Evansville, Ind. (*Jour. A. M. A.*, July 12, 1924, p. 121).

OLEO-BI (ROCHE).—A suspension of finely divided bismuth oleate in olive oil, containing bismuth oleate equivalent to 0.05 Gm. of bismuth (Bi) in each Cc. Oleo-Bi (Roche) is proposed as a means of obtaining the systemic effects of bismuth in the treatment of syphilis

(see Bismuth Compounds, *New and Nonofficial Remedies*, 1924, p. 74). Two Cc. are administered intramuscularly, preferably into the gluteal muscle, two or three times a week. Oleo-Bi (Roche) is marketed in the form of 2 Cc. ampules. The Hoffmann-La Roche Chemical Works, New York. (*Jour. A. M. A.*, July 19, 1924, p. 195).

BUTYN OINTMENT-M. E. S. Co.—Composed of butyn (see *New and Nonofficial Remedies*, 1924, p. 32) 1 per cent, water 1 per cent, wool fat and petrolatum 98 per cent. The ointment is put up in collapsible tubes for application to the eye. Manhattan Eye Salve Co., Louisville, Ky. (*Jour. A. M. A.*, July 26, 1924, p. 271).

PROPAGANDA FOR REFORM

THE COMMERCIAL TAINT IN MEDICAL ADVERTISING.—The advertisements of firms that sell apparatus, especially for physiotherapeutics and diagnostic uses, show a tendency to stress the idea that the purchaser of such apparatus will increase his income by impressing the layman with the scientific attainments of the individual who uses it. No decent man in the medical profession thinks of adding to his armamentarium for the purpose of financial gain. An advertiser's appeal to buy a piece of apparatus because of the "psychic effect" which it may produce on the patient is repugnant and insulting. Any firm that thinks it is going to obtain the good will of the medical profession by an appeal to the sordid is sadly mistaken. (*Jour. A. M. A.*, July 5, 1924, p. 44).

PROPHYLACTIC INOCULATION OF DOGS AGAINST RABIES.—The evidence for the efficiency of prophylactic immunization in persons bitten by rabid animals has long been too convincing to permit of doubt. In Japan experiments to reduce the frequency of rabies by inoculation of the dog population show that its frequency with dogs has been greatly reduced. (*Jour. A. M. A.*, July 5, 1924, p. 44).

PURIFICO, A CANCER CURE FRAUD.—In 1917 the persons doing business as the Purifico Company pleaded guilty to the charge of the federal authorities that the claim that Purifico was an effective remedy for cancer and other conditions was false and fraudulent. Now a fraud order has been issued against the Purifico Company denying the firm the use of the mails. Analysis showed "Purifico No. 1" to be a watery, alcoholic, sugar mixture of cinchona, plant extractives, a vegetable laxative and potassium iodid. "Purifico No. 2" was a watery, alcoholic mixture of cinchona, plant extractives and potassium iodid. "Purifico No. 3" was a watery, alcoholic, sugar mixture of plant extractives, including valerian. (*Jour. A. M. A.*, July 5, 1924, p. 56).

"CUPRASE-CHEMICAL COLLOIDAL COPPER."—In 1919 the Council on Pharmacy and Chemistry reported on Cuprase, marketed by the Anglo-French Drug Co. It stated that the claims made for this preparation are those commonly made for "cancer cures," and held that these could not be too strongly condemned. The Council contrasted the loose statement of the Cuprase advertising with the results reported by Richard Weil who was unable to find that colloidal copper had any therapeutic value. The Council declared the claims made for Cuprase extravagant and cruelly misleading. (*Jour. A. M. A.*, July 5, 1924, p. 59).

"SERO" ENDOCRINE PREPARATIONS.—A circular "For Endocrine Therapy" bears the name of R. A. White, Los Angeles, California, Endocrine Foundation Laboratories, Long Beach. It advertises "Asthma Sero," "Antitoxoid in Tuberculosis," "Rheumatism Sero," "Nephro Sero," "Pneumonia Sero," "Abscess Sero," "Tubes Sero" and "Malnutrition Sero." In connection with each product appear words, which if read hurriedly, might be taken by some as a statement of composition. For instance "Antitoxoid in Tuberculosis" is said to contain "Orco-plasm, Thyroid Extract and Phosphoro Iodide." "Rheumatism Sero" is said to contain "Orco-plasm and

(Continued on Adv. Page xx)



In Surgical Sutures

SATISFACTION lies in strength, sterility and uniformity of absorption, features to be attained only when the smooth or detached side of selected sheep gut is employed. Right now the price of raw material is very high. Some manufacturers are evening up things by using the mesenteric as well as the smooth portion of the intestine. None of the cardinal qualities can be guaranteed when the rough side is employed. This is obvious to the man who has studied the manufacture of catgut.

In the Armour Laboratory nothing but the smooth, straight side of the gut is put into surgical ligatures. This material is sterilized chemically and thermically at opportune stages and finally the finished suture is, after being placed in tubes, subjected to a degree of heat that means death to all spores and organisms.

The Armour Non-boilable Catgut Ligatures are as flexible as a silk cord, and are of full strength and absolute sterility.

Specify Armour's Non-boilable Catgut Ligatures. You will be satisfied.

PITUITARY LIQUID

(Armour)

the Premier Product of the kind, 1 c. c. ampoules—surgical, $\frac{1}{2}$ c. c. ampoules—obstetrical.

SUPRARENALIN SOLUTION 1:1000

Astringent and hemostatic.
Stable and non-irritating.

Headquarters for the Endocrines
and other Organotherapeutics

ARMOUR AND COMPANY
CHICAGO

WALLACE-SOMERVILLE SANITARIUM

Succeeding the Pettey & Wallace Sanitarium

MEMPHIS, TENN.

WALTER R. WALLACE, M.D.
WILLIAM G. SOMERVILLE, M.D.

FOR THE TREATMENT OF

**DRUG ADDICTIONS, ALCOHOLISM
MENTAL AND NERVOUS DISEASES**

Located in the Eastern suburbs of the city.
Sixteen acres of beautiful grounds.
All equipment for care of patients admitted.



Louisville Neuropathic Sanatorium

INCORPORATED

1412 South Sixth Street, Louisville, Kentucky

An ethical institution with modern equipment for the care and treatment of Mental and Nervous Diseases. Situated in residence portion of the city, yet quiet and retired. Rates furnished upon request.

W. E. GARDNER, A.B., M.D.

Medical Director

W. E. BENDER, M.D.

Resident Physician



TRUTH ABOUT MEDICINES

(Continued from Page 270)

Thymus Iodide." The circular contains the vague statement that orco-plasmas are compounds that "represent unchanged protoplasm and serologic organic and inorganic substance." It contains also the unenlightening statement that "the Inorganic Substances in the Seros are in form Physiological Solutions." The circular wisely makes no attempt to define "phosphoro-iodide" and "thymus iodide." (*Jour. A. M. A.*, July 5, 1924, p. 58).

CELLASIN.—Cellasin is sold by the Cellasin Company, Buffalo. Cellasin, then marketed by another firm, was reported on by the Council on Pharmacy and Chemistry about fifteen years ago. It was submitted to the Council with the claim that it was a ferment absorbed unchanged into the tissues, that it cured diabetes mellitus and that it cured tuberculosis and established immunity against this disease. The Council's report at that time brought out that the claims were unwarranted and that it contained, not a ferment, but a spore-producing bacterium which splits sucrose largely into lactic acid. (*Jour. A. M. A.*, July 5, 1924, p. 58).

MORE MISBRANDED NOSTRUMS.—The following products have been the subject of prosecution by the federal authorities charged with the enforcement of the Food and Drugs Act: Smith's Buchu Lithia Pills (C. F. Smith), containing powdered licorice, extracts of plant drugs including uva ursi and podophyllum, sodium, potassium, lithium and magnesium compounds, including nitrate and citrate, and soap. Famous Mineral Well Water (Famous Mineral Wells Water Co.), adulterated water, consisting in whole or in part of filthy and decomposed animal or vegetable substances. Foley's Kidney Pills (Foley and Co.), containing potassium nitrate, methylene blue, hexamethylenamin tetramin and plant material including resin and juniper oil. Ironglond Tonic Tablets (Sanitary Products Co.), containing an iron compound and material of animal origin. Remlock 300 (Remlock Hills Laboratory), consisting of 99 per cent water and 1 per cent calcium hypochlorite, calcium chlorid and calcium carbonate. Trask's Ointment (D. Ransom, Son and Co.), consisting of extracts of plants, including tobacco and lobelia, mixed with fat. Tubbs White Pine Cough Cure (The Tubbs Medicine Co.), consisting essentially of pine tar, extract of a bark, chloroform, sugar, alcohol and water. (*Jour. A. M. A.*, July 12, 1924, p. 138).

NICOMORS.—The Council on Pharmacy and Chemistry took up the consideration of Nicomors, stated to be a medical preparation for the alleviation of the physiologic effects of nicotin at the request of the Nicomors Products Company. Nicomors comes in the form of tablets which are claimed to contain magnesium peroxid and tannic acid

as their essential constituents. It is claimed that with the use of Nicomors the effects of tobacco smoking show very little or not at all. It is even claimed that the preparation has a favorable effect on the stomach and the intestines. The Council reports that the claim that the random use of a mixture of magnesium peroxid and tannic acid has a favorable effect on the stomach and intestines, is without warrant, and that the claim that the ill effects of tobacco smoking can be overcome by the use of Nicomors is not credible and not supported by any acceptable evidence. (*Jour. A. M. A.*, July 19, 1924, p. 212).

AN ANESTHETIC MONOPOLY.—U. S. patent 1,491,740 was issued April 22, 1924, and was assigned by the patentee to the S. S. White Dental Manufacturing Co. The specifications of the patent describe a process for making a nearly anhydrous nitrous oxid. The patentee claims patent rights, not only on his process for reducing the moisture-content and in nitrous oxid manufactured by that process, but on all nitrous oxid whatsoever conforming to the arbitrary standards stated in his claims, no matter how manufactured. The process, if novel, is presumably worthy of patent protection. But nitrous oxid has been recognized as a chemical entity since 1776, and it has long been possible to reduce by various processes the moisture-content incident to its manufacture. By what process of reasoning the patentee claims to have "invented" nitrous oxid of low moisture-content and how the patent office came to concede his claim, are beyond the comprehension of persons not versed in the mysteries of patent logic and patent law. It would not be to the public interest for any concern to obtain a monopoly on nitrous oxid free from moisture. It is to be hoped that the S. S. White Dental Manufacturing Company will not be able to secure a monopoly on dry nitrous oxid. (*Jour. A. M. A.*, July 26, 1924, p. 287).

SALVAROLS AND INSULOLS.—Salvarols are stated by the Drug Products Company to be rectal suppositories containing arsphenamin. The lack of evidence for the value of the rectal administration of arsphenamin was the subject of a report of the Council on Pharmacy and Chemistry in 1920, and the Council's conclusions have been fully confirmed. Insulols are stated by the Drug Products Company to be suppositories made "with carefully selected desiccated pancreas including the islands of Langerhans containing insulin in a safe and reliable form." The rectal administration of insulin has been tried, but without success. No preparation of the Drug Products Company has been admitted to New and Non-official Remedies. On the other hand, the Council on Pharmacy and Chemistry has reported unfavorably on the firm's "Pulvoids Calcylates," "Pulvoids Calcylates Compound" and "Pulvoids Natrium Compound." (*Jour. A. M. A.*, July 26, 1924, p. 289).

Indiana State Medical Association

(Continued from Adv. Page viii)

ENTERTAINMENT COMMITTEE—John R. Newcomb, Indianapolis, Chairman; A. L. Marshall, Indianapolis; Ernest Rupel, Indianapolis; John Sluss, Indianapolis.

FINANCE COMMITTEE—Alfred Henry, Indianapolis, Chairman; Harry Langdon, Indianapolis; E. E. Padgett, Indianapolis; W. W. Garshwiler, Indianapolis; Robert Moore, Indianapolis.

HOTEL AND HOUSING COMMITTEE—A. E. Guedel, Indianapolis, Chairman; LaRue Carter, Indianapolis; A. B. Graham, Indianapolis; C. R. Strickland, Indianapolis.

GOLF COMMITTEE—W. S. Tomlin, Indianapolis, Chairman; H. H. Wheeler, Indianapolis; Goethe Link, Indianapolis; Thos. L. Sullivan, Jr., Indianapolis.

PUBLICITY COMMITTEE—Thos V. Keene, Indianapolis, Chairman; Norman Jobs, Indianapolis; J. H. Taylor, Indianapolis; Thos. J. Beasley, Indianapolis; C. S. Goar, Indianapolis.

MEETING PLACE COMMITTEE—Charles N. Combs, Terre Haute, Chairman; Wm. A. Doeppers, Indianapolis.

RECEPTION COMMITTEE—All members of Indianapolis Medical Society.

MILITARY COMMITTEE—J. R. Eastman, Indianapolis, Chairman; LaRue D. Carter, Indianapolis; W. M. Stout, Newcastle; Charles N. Combs, Terre Haute; Carl Habich, Indianapolis; R. G. Hendricks, Indianapolis; J. S. Robison, Winchester.

BUREAU OF PUBLICITY—W. N. Wishard, Indianapolis, Chairman; F. W. Gregor, Indianapolis, Secretary; David Ross, Indianapolis; J. H. Stygall, Executive Secretary.

ADVISORY BOARD TO BUREAU OF PUBLICITY—(Appointed by Council)—S. E. Earp, President Indiana State Medical Association; E. M. Shanklin, Chairman of the Council; A. E. Bulson, Jr., Editor Journal of the Indiana State Medical Association.

THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

ISSUED MONTHLY under Direction of the Council

ALBERT E. BULSON, Jr., B.S., M.D., Editor and Manager

OFFICE OF PUBLICATION: 406 West Berry Street, FORT WAYNE, INDIANA

VOLUME XVII

SEPTEMBER, 1924

NUMBER 9

ORIGINAL ARTICLES

THE TREATMENT OF NEOPLASTIC DISEASES BY COMBINED METHODS*

WILLIAM L. CLARK, M.D.
PHILADELPHIA

In the absence of any knowledge of the etiology of neoplasms we are unfortunately handicapped in the application of specific treatment and absolute cure of the disease. We, therefore, must rely on such means as experience has proven to be the most successful. Briefly, the methods used are surgery, x-rays, radium, and electrothermic methods (desiccation and coagulation). From the earliest days of medicine until recent years, surgery was practically the only method used in the treatment of malignant growths. Since the advent of roentgen rays, radium and electrothermic methods, these agents have not only supplemented surgery, but in a number of instances, have replaced it entirely.

To the question, "Which of these methods yields the best result?" we would answer that each of these agents has its own field of usefulness in which it excels, and that comparatively few cases should be treated by one method alone, but rather by a combination of one or more. The type, location, and extent of involvement are the determining factors. He who limits himself to one method may attain success in a certain number of cases, but will inevitably meet with failure in many others.

In dealing with a localized neoplasm, such as basal cell epithelioma, there is, on the whole, no better and more efficient method than electro-desiccation. The growth can be destroyed with one treatment, and the resulting scar is soft and elastic, yielding a cosmetic result not excelled by any other method.

Again, in cases of widespread basal cell epitheliomata involving cheek, nose, and antrum, and considered surgically inoperable, the electrocoagulation method will give excellent results. Where, however, there is a danger of the formation of metastasis as, for example, in squamous epitheliomata of the lip, tongue, or buccal surface,

the growth is first destroyed by coagulation, and the regional lymphatic glands treated with radium needles, radium from the outside, or x-rays, either singly or in combination. Radium and x-ray are, also, frequently resorted to as a preoperative measure with a view to checking metastasis to the neighboring lymphatic drainage areas.

In extensive squamous epitheliomata of the tongue we have practically eliminated surgery and replaced it by coagulation, radium and x-rays. When partial or complete amputation of the tongue is indicated it is accomplished by coagulation, followed by radium and x-rays, according to the requirements of the case. This method, also, reduces hemorrhage and infection to a minimum. Where involvement of the tongue and fauces is extensive it is sometimes found advisable to ligate one or both external carotid arteries as a means of preventing secondary hemorrhage. This danger is also greatly reduced by keeping the tissues of the floor of the mouth firm and free from bacterial invasion by the daily use, following the operation, of Dakin's solution. When the involvement of the tongue and fauces is considerable, interfering with the nourishment of the patient, a preliminary gastrostomy is advisable.

Malignant disease of the antrum not infrequently demands a combination of all methods. Exposure of the lesion may be accomplished by a surgical incision through the cheek, followed by coagulation, and subsequent treatment by inserting of radium in needles or capsules. Again, the antrum may be entered through the hard palate, or, if the eye be involved, through the floor of the orbit.

In cases of involvement of this latter organ exenteration may be performed, by the coagulation method, with excellent results. In certain cases it is necessary to supplement this treatment by the use of radium needles, or capsule.

When malignant growths occur in inaccessible locations the electrothermic methods are naturally contraindicated, and the methods of choice are radium, and x-rays, or both.

Although angiomas are benign growths, one should choose carefully the proper agent for their removal or destruction, being particularly governed by the type and location. For example, a cavernous angioma confronts us with such serious

*Presented before the Section on Surgery of the Indiana Medical Association at the Terre Haute Session, September 27, 1923.

problems as hemorrhage, thrombosis, and infection. These dangers are practically eliminated by using coagulation as the method of treatment. On the other hand the site of the angioma, as an indication of the method to be used in its destruction, is exemplified in the case of an angioma of the lip or tongue of a nursing infant. Here, radium is used in preference to coagulation.

As a further aid in the choice of the method to be used in treatment of tumors, let us inquire briefly into the histopathological changes that accompany these various methods.

Histologically we look upon all neoplasms as a lawless proliferation of cells. While there are many determining factors, it may be stated in general that the type of the cell and its capacity for growth are indices of its relative benign or malignant nature.

The surgeon's knife acts as a physical agent and is concerned only with the excision of the tumor as a whole, and not with the destruction of the individual cell. Nor does it provoke special tissue changes, immediate or remote, in the involved area after the growth is removed. The cellular changes that occur after such removal are those of regeneration and such as follow local trauma.

Electrothermic methods, in addition to mass destruction of the tumor, cause changes in the neighboring cells.

In the case of x-rays and radium, the destruction of the neoplasm occurs *in situ* by the peculiar influence exerted by these agents upon the neoplastic elements. While it has not been definitely ascertained whether their action is biochemical or physiochemical, they are known to induce a series of histological changes which influence the future behavior of the growth.

A brief review of a few fundamental pathological principles will not be amiss since it will aid us to correlate the histological and clinical aspects of neoplastic affections. In general, it may be said that degeneration of cells is caused by an irritant. An irritant is any agent capable of causing a biochemical upset. A degenerative process once initiated, and persisted in, leads to cell necrosis. The necrotic material eventually disappears and the destroyed cells are replaced by connective tissue. The amount and quality of connective tissue is in direct proportion to the amount and nature of the degenerative and necrotic material and is influenced by the particular type of irritant. Radium, x-rays, coagulation and desiccation behave as irritants, and have a common resemblance in that they all cause death of the cells. They differ, however, not only in their mode of action but also in the necrotic changes induced and the resulting fibrous connective tissue formation. It is generally recognized that radium initiates a series of cellular changes with eventual disintegration of the cells, the typical histologic picture consists of hydropic and

fatty degeneration, and is associated with abundant connective tissue proliferation.

X-rays, likewise, acting as an irritant, induce changes in the cells not unlike those caused by radium.

In the case of desiccation the cells and their nuclei, instead of showing degenerative changes, look shrunken and shriveled, assuming a mummified appearance (mummification necrosis). The histologic appearance of the tissues resulting from coagulation show a complete loss of cell outlines, the affected cellular elements presenting a condensed, homogeneous, structureless mass (condensation necrosis). The change exhibited in the cells treated by desiccation and coagulation are governed by certain fundamental principles upon which these methods are based. The electrothermic methods are dependent for their results upon the heat generated in the tissues owing to the resistance offered to the current. In case of desiccation, the current being of comparatively low amperage, only a moderate degree of heat is produced, of sufficient intensity, however, to cause complete evaporation of the water content of the cells, hence their mummified appearance. Since this mode of cell death is associated with very little degenerative change and the scant formation of disintegrated material, there is but a small amount of fibrous tissue as an end result. The coagulation method, requiring a higher amperage, induces a more intense heat so that it not only dehydrates the tissues but causes coagulation of the cell protoplasm, i. e., a greater degree of cell disintegration, and resulting in the formation of more fibrous tissue.

SUMMARY

1. The present methods of proven value for the treatment of cancer are: Surgery, the actual cautery, electrothermic methods, radium and x-rays.

2. Surgery (the knife) only removes the tumor, but has no effect on the individual cells.

3. The actual cautery destroys these cells, and the heat is carried only slightly beyond the area actually treated. Hemorrhage is considerably reduced, but owing to the degree of tissue destruction produced a marked fibrosis results with considerable scarring and contraction. Keloid frequently follows.

4. The electrothermic methods, desiccation and coagulation, possess all the advantages of the actual cautery, with the following additions: heat penetration is much greater, in fact this is under the control of the operator to a large extent; thrombosis of the neighboring blood and lymph vessels occurs, thus minimizing the danger of hemorrhage and metastasis; the results obtained with the electrothermic methods are so much superior to those following the use of the actual cautery that the latter is no longer used in this institution; as comparatively little cell destruction

occurs the resultant fibrosis is of a very moderate degree, resulting in soft pliable scars; in many extensive "inoperable" cases the coagulation method gives excellent results; the desiccation method (Monopolar) consists in the use of a high frequency current of high voltage and low amperage and causes, by the mild degree of heat produced, a dehydration effect in the tissues; in the coagulation method (Bipolar) a more intense heat is produced by using a relatively lower voltage and higher amperage and thereby causing not only a dehydrating effect but, also, a coagulation of the protoplasm of the cells.

5. Radium may be used either in the form of the element or of emanation; either of these may be used in needles, capsules, or plaques, producing in the tissues a hydropic and later a fatty degeneration, with a resulting fibrosis which is abundant and dense; emanation in capillary glass tubes, which are buried in the diseased tissues, produces excessive fibrosis, and is often followed by the formation of extensive sloughs which greatly delays healing.

6. X-rays produced by voltages of from 110 to 220 kilovolts are employed; the malignant cells appear to be more sensitive to radiation than the normal tissues and are destroyed more readily, but care must be taken not to injure the surrounding tissues; our present tendency is, therefore, to reduce, rather than increase, the time of exposure which has been customary in the past.

7. Each of these methods possesses valuable properties and may be employed alone in the treatment of certain conditions, but experience has shown that quite often, two or more of them should be employed in combination in order to obtain the best results.

THE CLOSURE OF CHRONIC EMPYEMA CAVITIES BY CHEMICAL TREATMENT*

W. D. GATCH, M.D.
INDIANAPOLIS

What we may term the chemical treatment of chronic empyema, used deliberately for the purpose of replacing thoracoplasty, is of a very recent origin. Gibbon credits Depage of Brussels, with having devised it, and Tuffier with having demonstrated, in February, 1918, a series of twenty-five cases successfully so treated. Heuer, however, was acquainted with the principle of the method as early as 1913, and was first in this country to publish results obtained therewith. Gibbon and Keller have recently reported series of cases showing a very satisfactory outcome.

The logical basis of the method is thus given by Heuer: "Surgeons previously directed their efforts toward its obliteration. Now their attention is rather directed toward the treatment of the in-

fection, leaving the cavity to a certain extent to take care of itself."

The antiseptic most used by the above mentioned writers to sterilize empyema cavities has been ordinary Dakin's solution, though bismuth paste and pure carbolic acid have been tried. Keller has employed at times a two per cent solution of gentian violet in alcohol.

On the patients here reported I used in nearly every case chlorazene solution of a strength of from two per cent to five per cent. In one cavity I used an aqueous solution of gentian violet. The latter probably would have been very beneficial for all the cases complicated by bronchial fistula.

I treated my first case by the chemical method in August, 1920. Up to that time I had been frankly skeptical as to its merits, having seen disastrous results follow efforts to sterilize, without adequate drainage, acute empyema cavities.

The patient in question had an empyema of six months' standing. The cavity occupied one-half of the left side of his chest. It was full of pus, which exuded at intervals from a narrow sinus. He was weak and septic. I removed, under local anaesthesia, a segment of rib and excised the thick underlying plura so as to establish free drainage. There was no bronchial fistula. It occurred to me that the cavity I was draining, with walls of cartilage-like hardness from a quarter to half an inch in thickness, could be irrigated safely with a strong antiseptic solution, and that perhaps a partial liberation of the lung could be accomplished by this means. I, therefore, used for this purpose a solution of chlorazene, because of the well-known power of chlorine to dissolve devitalized tissues. The treatment was carried out as follows: The patient was so placed on his sound side that the drainage sinus was at or near the highest point of the cavity. The latter was then filled with the solution, which was poured through a funnel into the drainage tube. After filling the cavity, the patient was kept in the same position for fifteen or twenty minutes, or until he tired. The solution was then drawn off by aspiration, care being taken to keep it from contact with the skin. This treatment was repeated three or four times a day. The patient was sent home on the eleventh day after the operation, with instructions to have his physician keep up the irrigations, and to report for a second operation,—decortication or thoracoplasty—in three weeks. He reported at the prescribed time, but the second operation was never performed, for the cavity was obliterated and the lung completely expanded.

This unexpected and happy result led me to use the same technique on every case of this kind. To date I have so treated twenty-one cases, with results here reported.

For clearness and convenience of presentation I have divided the cases into three groups, as follows:

*A revision of a paper read before the Western Surgical Association in December, 1922.

Group 1. Cases without tuberculosis and without bronchial fistula. Eleven cases.

Series No.	Age	Sex	Duration of Disease to Admission	Time Required to Close Cavity	Size of Cavity	Remarks
1	32	M.	6 months	3 weeks	600 cc.	
2	16	M.	21 "	Never	Large	Died
3	23	M.	9 "	2 weeks	Third rib	
4	37	F.	3-4 "	4 weeks	700 cc.	
5	16	M.	8 "	4 weeks	2000 cc.	
6	18	M.	8 "	6 weeks	Fourth rib	
7	37	M.	2 "	3 weeks	1000 cc.	
8	34	M.	12 "	30 weeks	600 cc.	
9	19	F.	2 1/3-3 "	2 months	400 cc.	
10	30	F.	3 "	2 months	About 500 cc.	
11	34	F.	4 years	4 weeks		

Averages: 26.10 years, 11.2 months; 45.9 days.

Group 2. Patients without tuberculosis but with bronchial fistula. Five cases.

Series No.	Age	Sex	Duration of Disease to Admission	Time Required to Close Cavity	Size of Cavity	Remarks
12	3	M.	12 months	3 months	Entire left side	
13	21	M.	16 "	4 months	Over I. L.	
14	47	F.	36 "	5 months	Nearly all left side	
15	38	M.	5-6 "	5 months		
16	66	M.	4 "	Practically closed	Large	*Operation

*Three weeks ago. Bronchial fistula closed and cavity greatly reduced. Gentian violet used as irrigating fluid.

Averages: 35 years; 14.4 months; 127.2 days.

Group 3. Patients with tuberculosis pleurisy which had been infected by pyogenic organisms, and with or without bronchial fistula.

Series No.	Age	Sex	Duration of Disease to Admission	Time Required to Close Cavity	Size of Cavity	Remarks
17	42	M.	3 weeks	5 weeks	Large per cent	
18	45	M.	14 "	Never	Entire right side	Died
19	22	M.	2 "	6 weeks	Entire left side	None
20	15	M.	5-6 "	2 months	Second left rib	None
21	19	F.	15 "	Never entirely	Almost entire left side	None

Averages: 28.3 years; 7.2 months; 26.3 days.

Two of the twenty-one patients have died, one while under treatment in the hospital, and one after discharge. The former died of a brain abscess, with the diagnosis confirmed by autopsy, the latter of bilateral pulmonary tuberculosis, several months after leaving the hospital. The patient who died of brain abscess was admitted in a desperate condition in the twenty-first month of his illness. The remaining patients are all well and at work.

The sole operation performed on any of these patients with but two exceptions was rib resection to establish good drainage. In the two exceptions, thoracoplasty, with resection of segments of several ribs, was performed.

The patients in the three groups presented rather distinct problems, which it is well to discuss separately. In Group 1 the results were most quickly and easily obtained. A simple rib resection followed by lavage with strong chlorazene as described above, resulted in a rapid closure of the cavities. It would have been possible in all of these cases to have closed the sinuses before the cavities had been obliterated, but I felt that the

ultimate result would be better if the lavage were continued as long as possible because of the de-cortifying effect of the solution.

In Group 2 the presence of a bronchial fistula complicated the treatment and greatly prolonged the time required for the cure. Notwithstanding this, my experience with bronchial fistula in this series of cases and elsewhere has convinced me that they will close practically always without being subjected to a direct operative attack, provided the empyema cavity, with which they communicate, is completely drained. Indeed, I think that operation on these fistulae is likely to do more harm than good. In this series every fistula closed in less than three months. I always delayed irrigation until I was certain that closure was perfectly solid, and then did not irrigate with very strong solutions. One case in this group is worthy of a separate report: Mrs. C. P., aged forty-eight, admitted August 15, 1921. Complaint: Continual expectoration of foul smelling pus, pain in the right side of the chest, chills and fever, weakness and emaciation. The patient's trouble dated from an attack of influenza

in the fall of 1918. This had been followed by pneumonia and empyema, for after a severe illness of four months' duration an intrathoracic abscess ruptured into a bronchus and the patient was almost suffocated by the pus. Since that time, which was three years before admission, she had been bedridden most of the time. She had had periodic attacks of chills and fever with expectoration of foul yellow pus.

Condition on admission: The patient was markedly emaciated. X-ray and physical examination showed that the right side of the chest was almost completely occupied by an abscess which was manifestly draining through a bronchial fistula. There was marked cardiac insufficiency. The patient also showed a well developed hypertrophic pulmonary osteo-arthritis. Two inches of the fifth rib were resected in the posterior axillary line, the thickened pleura was incised and a large quantity of pus evacuated.

The expectoration of pus ceased immediately after the operation. In two and a half months the presence of a bronchial fistula could not be demonstrated. Irrigations of weak chlorazene solution were then started, and when it was found that these were well borne two per cent solutions were employed. When the exudate from the cavity had been sterile for some time the sinus was closed by operation (December 6, 1921). On discharge, December 30, 1921, the patient was in excellent condition and weighed thirty pounds more than on admission, but the cavity was still present. On March 4, 1922, a clear fluid containing staphylococci was obtained by aspiration. The same result followed aspiration in April, 1922, but despite this the cavity seemed to diminish slowly in size. After a lapse of about nine months, however, the cavity filled with pus and ruptured into a bronchus. In this case I was finally driven to do an extensive thorocoplasty before I succeeded in closing the cavity.

It is with the patients belonging to Group 3 that I encountered the most difficulty. My experience here agrees with that of Hedblom, that the cavities with tuberculous infection cannot always be treated with chlorinated solutions. They excite at times a rather violent febrile reaction. However, with a greatly thickened pleura such lavage may be well borne. From this group I report one unique case—Case 15.

The patient was a powerfully built young man of twenty-two years. Two months before admission he had had a segment of rib resected to drain off what was in all probability a tuberculous effusion which had become infected with pyogenic organisms. On admission he had a complete pneumothorax on the left side. The heart was displaced until it lay entirely to the right of the midline. Cultures of the exudate showed the bacillus pyocyaneus and staphylococci. Following an effort to sterilize, the cavity was

then lavaged twice daily with a 1:500 solution of gentian violet. This was well borne and in a short time staphylococci completely disappeared from the exudate, though the same still contained the bacillus pyocyaneus. The sinus was then closed. The next day the entire left side of the thorax had become filled by an exudate of straw colored fluid. Treatment from this time has been by aspiration and irrigation of the cavity with gentian violet solution. The ultimate result after about four months of treatment is a complete cure.

The results obtained in this case were of extreme interest to me because they demonstrate that a complete, unilateral pneumothorax infected by the tubercle bacillus and pyogenic organisms and with displacement of the heart can be sterilized and closed and that the ultimate result will be a complete cure.

I suggested earlier in this paper the use of gentian violet in cavities communicating with bronchial fistulae. I have no doubt that these cavities can be kept relatively sterile by spraying with an aqueous solution of this dye. It is completely non-irritating to the tissues, and in a strength of only 1:100,000 will destroy gram positive organisms. Bacteria of this class were found in all the cases here reported.

The limit of time has confined me in this paper to a report of technique and results. I have been obliged to omit the discussion of many interesting phases of the subject. My experience coincides entirely with that of other observers. In addition I have demonstrated that it is perfectly safe to use in these cavities Dakin's solution of several times the strength usually employed. Also that this solution, besides its sterilizing effect, has a beneficial action in dissolving the thick wall of the cavity and in opening up secondary pockets of pus not draining into the main cavity. In fact, with this technique I have had no delay, or at least I have been unaware of any delay in the course of closure from such pockets.

SUMMARY AND CONCLUSIONS

Of twenty-one cases of chronic empyema I have succeeded in closing seventeen by the use of the so-called chemical method. Two cases have died, but neither from causes in any way connected with the treatment. One patient with tuberculosis still has a small sinus, but is able to work and earn a living. One case required a small, and one a large thoracoplasty.

The treatment employed has been demonstrated to be devoid of danger, and is easily carried out. The strong chlorinated solution rapidly sterilizes the cavity and destroys the thick walls of the same at a rate which is not too rapid for safety. It also opens up pockets of pus not draining freely into the main cavity.

Bronchial fistulae will close practically always when the empyema cavity with which they communicate has been completely drained.

Cavities infected with the tubercle bacillus cannot be irrigated with chlorinated solutions unless they have very thick walls.

Aqueous solutions of gentian violet can be used to destroy gram-positive organisms in these cavities. The same, when free of pyogenic infections, may be closed without draining. This offers the only possible hope of cure.

The dissolving action of chlorazene solution on the thickened pleura can be demonstrated *in vitro*. X-ray plates of chest before and after treatment demonstrate a complete disappearance of the thickened pleura.

REFERENCES

Keller, *Annals of Surgery*, Vol. lxxvi, No. 5, pp. 549-580.
Gibbon, *American Jour. Med. Science*, Vol. clxii, No. 601, pp. 469-484.
Heuer, Article on Thoracic Surgery in Supplemental Volume to Keen's Surgery.

THE VALUE OF BASAL METABOLISM IN CLINICAL MEDICINE

CHARLES L. SEITZ, M.D.
EVANSVILLE

Estimation of the basal metabolic rate has come to be employed widely in the practice of clinical medicine and its value has been firmly established. It is incumbent, therefore, on all progressive physicians to familiarize themselves with this test, what it signifies and in what clinical conditions it is of value, in order that they may avail themselves of its aid in suitable cases.

Basal metabolism or the basal metabolic rate may be defined as the minimal heat production of an organism, measured from twelve to eighteen hours after the ingestion of food and with the organism at complete muscular rest. During life there is constant production of heat by each organism, which varies in amount at different times and under different circumstances, and ceases only with death. All vital processes are attended by heat production, but the largest amounts are produced by muscular action, and during digestion and the process of absorption. If we eliminate these factors there will remain the heat production resulting from the various vital processes which are ordinarily beyond our voluntary control. Thus the contractions of the heart and blood vessels in maintaining the circulation are attended by the production of heat, which likewise results from the muscular actions concerned in the process of respiration; and further, there are various glandular and chemical processes constantly going on within our bodies which result in the production of small amounts of heat. The sum of these various amounts of heat produced during the post-absorptive stage, with the body at complete physical and mental quiet, constitutes the basal metabolic rate. In the practical application of this test, it is found that mental quiet is a very important and necessary condition, as mental or nervous excitement of any kind causes a prompt rise in the metabolic rate, probably largely by in-

creasing the activity of the circulation and respiration.

The basal metabolic rate is ordinarily expressed as the number of calories of heat per hour per square meter of body surface. Formulas have been devised by which it is possible to determine the surface area with a very small possible error if the height and weight are known. A graphic chart has been constructed by DuBois and DuBois from which the surface area in square meters may be estimated quickly if these two factors are known. It has been found as a result of large numbers of tests, that the rate of heat production is not the same at all times of life and in the two sexes. Thus, according to the DuBois standard, the normal rate for a man eighteen to twenty years of age is forty-one calories, and for a woman, thirty-eight calories per hour per square meter of body surface. With increasing age the rate declines, as is shown in the following table:

STANDARDS OF NORMAL METABOLISM
Average Calories per Hour per Square Meter of Body Surface—(DuBois)

Age, Years	Males	Females
14 to 16	46	43
16 to 18	43	40
18 to 20	41	38
20 to 30	39.5	37
30 to 40	39.5	36.5
40 to 50	38.5	36
50 to 60	37.5	35
60 to 70	36.5	34
70 to 80	35.5	33

It is very difficult to make satisfactory determinations of the basal metabolic rate in young persons on account of the difficulty in keeping them quiet for a sufficiently long time. The normal standards for this time of life have not been accurately determined and clinical tests of any value are made with great difficulty.

Several other methods for predicting the normal basal metabolic rate have been proposed, but the standard of DuBois is most widely used and possesses the advantage that a great mass of work has been done, using the DuBois height-weight standard, which constitutes the basis of our knowledge of basal metabolism. Therefore, for the purpose of comparison with previous results in various clinical conditions, this method is preferable to the other methods. Comparative studies, however, using the different standards, have shown that there is very little difference in the results obtained with the different standards.

The heat production of an organism may be directly measured with the subject at rest in a calorimeter chamber. It was by this method that the first investigations on basal metabolism were made and the essential facts determined which furnished the basis for the later development of clinical calorimetry. This method is extremely complicated and technical, and is possible in only

a very few scientific institutions where these respiration chambers have been constructed.

The basal metabolism may be indirectly determined by measuring the amount of oxygen consumed and the carbon dioxide eliminated. It has been found that this method possesses very great accuracy when compared with the rates obtained with the direct method. Ordinarily, the respiratory quotient, or the ratio between the volume of carbon dioxide produced and the volume of oxygen absorbed is 0.82. For this respiratory quotient the calorific value of one liter of oxygen is 4.825 calories. Thus, if we measure the volume of oxygen consumed by the subject under standard conditions, we can readily determine the total quantity of heat produced. If we know the surface area in square meters, we can then reduce this to the number of calories per square meter per hour. When this figure is divided by the rate which is considered normal for a person of the same age and sex, it gives the basal metabolic rate, which is usually expressed in percentage, above or below 100 per cent.

In the indirect determination of the basal metabolic rate two types of apparatus are used: the open circuit and the closed circuit types. In the open circuit type, the subject breathes the outside air and exhales into a bag or spirometer for a certain length of time. At the end of this period a sample of gas from the bag or spirometer is analyzed to determine the oxygen and carbon dioxide percentage, from which the total oxygen consumption and carbon dioxide elimination are determined. This constitutes an accurate index of the quantity of heat produced. The advantage of this method lies in its accuracy. Its disadvantage is that it requires a gas analysis, which is not a simple procedure but requires considerable technical skill. This method is best adapted to large institutions and clinics where large numbers of tests are constantly being made. It is the method in use at the Mayo Clinic, where many thousands of tests are made yearly.

In the closed circuit type of apparatus the subject breathes in and out from a closed receptacle containing oxygen, which is usually kept in circulation by means of a small blower fan. The carbon dioxide in the expired air is absorbed by passing through soda-lime. The amount of oxygen which has been consumed in a definite period of time may be read directly from the scale on the side of the apparatus, from which the heat production is readily determined. Several instruments of the closed circuit type, with which reliable results may be obtained if care is taken to avoid errors, are on the market. It must be emphasized that extraordinary care is necessary in order to secure reliable results. The sources of error in making basal metabolism determinations are very numerous, and the operator must be familiar with all of them and must be constantly on the alert in order to recognize the exist-

ence of any of them. This test is not a simple one for anyone to undertake who has not had some experience, but with care and close attention to details, results of value are possible.

The advantage of the closed circuit type of apparatus is the comparative simplicity and the ease with which basal metabolism determinations are made. Several objections to them have been mentioned, such as the greater error resulting from leakage at any point of pure oxygen as compared with leakage of air in the open circuit apparatus; the danger of combustion from a spark from the motor in an atmosphere of pure oxygen; the danger of transmission of infection from one patient to another through the use of the apparatus, etc. The last objection, as shown by McCaskey, is hardly a valid one. It is a question, however, if simplification of apparatus may not be carried too far, as has been emphasized by Benedict and others. Simplification to a point where the apparatus would be placed in the hands of too many men, many of whom would not have the necessary technical training and experience for this kind of work would only result in harm and discredit the value of these tests.

I shall make no effort to discuss the technical side of these tests, but shall confine myself to their practical application in clinical medicine, the results obtained in different conditions, and the indications for making these determinations. In testing large numbers of apparently normal individuals it is found that the great majority of them have metabolic rates corresponding closely with the rates as predicted by the DuBois scale for similar age and sex. Thus, most of these will have rates between +5 per cent —5 per cent. A considerable number, however, will have rates as much as 10 per cent above the normal standard, while others will have rates as much as 10 per cent below this standard. The normal range of the basal metabolism is considered, therefore, to be between +10 per cent and —10 per cent. Rates between +10 and +15 per cent, and between —10 and —15 per cent may be considered borderline; all others abnormal, and the farther above or below these points they are the greater is their significance. It is especially in connection with borderline rates that the greatest care must be exercised to eliminate all errors and disturbing factors which might modify the rate and result in an erroneous interpretation of the clinical condition. It is also necessary to remember that the rate obtained in the first test is usually somewhat higher than the true basal rate, and in nervous individuals may be considerably higher. Therefore, it may be necessary to repeat the test one or more times on successive days in order to obtain the true basal metabolic rate.

Boothby calls attention to the similarity of the basal metabolic rate to another method of measuring heat, namely, with the thermometer. By

means of thermometer readings, diseases are divided into two classes, febrile and afebrile diseases. Similarly, the basal metabolic rate divides diseases into three classes: those with normal rates, those with increased rates, and those with decreased rates. And further, as there is no one normal temperature, but a range in health of from 97.5 to 99 F., so there is no one normal basal metabolic rate, but a range from -10 per cent to $+10$ per cent. While this might seem to be a very wide range for the normal, it is really no greater when compared with the entire range of the basal metabolic rate, say from -45 per cent to $+125$ per cent, than is the normal temperature range when compared with the ordinary range of temperature in disease, say from 99 to 105 F.

First, with regard to increased metabolic rates: Boothby says that for practical diagnosis, an increased basal rate indicates hyperthyroidism, either from exophthalmic goiter or thyroid adenoma, provided active acromegaly is ruled out and the group of febrile diseases is eliminated by a normal temperature curve. A knowledge of the temperature curve is important because the metabolic rate may be elevated in conditions, as mild tuberculosis, in which the temperature at the time of making the test may be normal, while later in the day it may be slightly elevated. The estimation of the basal metabolic rate finds its widest field of usefulness in various diseases of the thyroid gland. It may, in fact, be said that no study of a thyroid case is complete without a determination of the metabolic rate. I do not mean to infer that determinations of basal metabolism are always necessary in order to make a correct diagnosis, for many, or most cases of thyroid disease, may be diagnosed by ordinary clinical methods. But in any case an estimation of the basal metabolism will add to our understanding of the exact condition present, and thus will be of value and an aid in determining the proper course of management. A fully developed case of exophthalmic goiter offers no difficulties in diagnosis, *per se*, but beyond the mere making of a clinical diagnosis, there is much to be learned and determined in any case: the severity of the hyperthyroidism, whether the hyperthyroidism is increasing or decreasing, the prognosis, the safety of operation, the best type of operation, etc. It is here that basal metabolism offers its special information to add to the data obtained from all other possible sources as an aid in determining these points.

The thyroid gland exercises an important control over the heat production in the body, most probably through the action of its hormone thyroxin, which was discovered by Kendall in 1914. Increased activity of the thyroid gland with increased production of thyroxin results in increased chemical changes and heat production, or in other words, an increased basal metabolic rate. In-

creased thyroid activity, or hyperthyroidism, is the most important cause of an increased basal metabolic rate. It is very important to remember, however, that hyperthyroidism and exophthalmic goiter are not synonymous terms, as they are often assumed to be. We may readily produce hyperthyroidism by the administration of thyroid extract or thyroxin, but it is impossible to produce exophthalmic goiter in this manner. Hyperthyroidism is only one of the symptoms, although it must be admitted, probably the most important symptom of exophthalmic goiter.

Toxic goiters or those causing hyperthyroidism, are divided by Plummer into exophthalmic goiter and toxic adenoma, two separate and distinct pathological and clinical conditions. In both we have an elevated basal metabolic rate, often to very high levels, which indicates the presence of hyperthyroidism, but does not indicate whether this is caused by exophthalmic goiter or by thyroid adenoma. This diagnosis must be made from other data at our disposal.

In exophthalmic goiter the basal rate in mild cases usually ranges from $+20$ to $+40$ per cent; in moderate cases from $+40$ to $+60$ per cent; while in severe cases the rate may go as high as $+125$ per cent and very rarely $+150$ per cent. We have in the pulse a good criterion of the severity of any case of exophthalmic goiter and usually the pulse and the metabolic rate run parallel to each other according to the severity of the case. But there are severe cases with a comparatively slow pulse and here the basal metabolic rate might be the only true indicator of the severity of the disease. And conversely, there are many cases of mild exophthalmic goiter which have a very rapid pulse which would have no significance in regard to the severity of the hyperthyroidism.

In the surgical treatment of exophthalmic goiter and toxic adenoma, basal metabolism determinations are of distinct value. The mortality rate following operation in these conditions is largely dependent on the proper selection of cases for operation, the selection of the proper type of operation, and the time when operation is performed. Basal metabolism will not tell us whether or not operation is safe in any case of toxic goiter, beyond indicating the degree of hyperthyroidism present. It is a well-known fact that the course of exophthalmic goiter shows distinct waves or cycles of alternating exacerbations and remissions, one complete cycle usually occupying several months or longer. Operation, when the disease is on the downward wave, is much safer than when it is on the upward wave of an exacerbation, even though the basal metabolic rate in the former case may be considerably higher than in the latter case. In other words, operation is not so safe when the basal metabolic rate is increasing as when it is decreasing. This point, whether the disease is on the upward or the downward

curve, may be better determined by repeated metabolic tests than by any other means. The time for operation may then be determined at a favorable point in the course of the disease, with corresponding greater chances for recovery than if this factor had not been considered. It is by the proper selection of cases for operation, no less than the degree of acquired skill from many operations, that the mortality rate in some of our large clinics has been reduced to such a low level.

After operation, basal metabolism may be of value in cases which have not made satisfactory improvement, but still present such symptoms as nervousness, debility, tachycardia, etc. It may be very important to determine in these cases whether these symptoms are due to overactivity of the thyroid gland or simply to general debility. In the former case it would indicate that sufficient thyroid gland had not been removed and that a second operation is necessary. The following case history illustrates the importance of determining the basal metabolism in these cases after operation:

Case I. Mrs. R. H., aged twenty-five, operated six years previously with removal of the thyroid gland for exophthalmic goiter. Following the operation she was well for a while, then developed rheumatism after tonsillitis. At one time she was "crazy," according to her physician, but later improved mentally. She was at this time unable to be up on account of weakness and pain. Her general examination was negative with the exception of the presence of mitral disease. Her basal metabolism was -25 per cent. She was then placed on thyroid extract, under which she showed considerable improvement and was able to work part of the time. A test made several months later, while taking thyroid extract, gave a rate of -6 per cent.

Similarly, in the treatment of exophthalmic goiter with radium or the roentgen ray, it is important to make repeated basal metabolism tests in order to determine when sufficient radiation has been given to produce the desired inhibitory effect upon the activity of the thyroid gland.

While basal metabolism determinations are of great value in clear-cut cases of exophthalmic goiter and hyperthyroidism, they are probably of even greater value in atypical cases where the hyperthyroidism may be manifested by few or only one of the usual symptoms typical of these conditions. A tachycardia, persistent or developing only under excitement, a tremor, nervousness, or any of the other symptoms, may be the only clinical evidence of excessive thyroid activity. A basal metabolism test is the only reliable means we have of determining this point. The epinephrin test of Goetsch has given so many positive results in conditions not associated with hyperthy-

roidism that it cannot be considered of any real value in diagnosing hyperthyroidism.

Basal metabolism determinations are of very great value in ruling out hyperthyroidism in a large number of conditions which resemble it very closely but are not at all dependent on overactivity of the thyroid gland. We all know how very common are such symptoms as tachycardia, nervousness and tremor, and how very common is a slight or moderate enlargement of the thyroid gland, especially in young women and in certain localities. It will be readily understood that patients with such symptoms as tachycardia, nervousness, tremor, etc., will often incidentally have a slight or moderate enlargement of the thyroid gland due to colloid goiter or adenoma, which has absolutely nothing to do with the symptoms complained of, but taken in conjunction with them, gives a picture closely resembling hyperthyroidism and in fact cannot be differentiated by any other means than by the basal metabolic rate. Such conditions are by no means rare. Quite a large number of them have come under my observation, and I wish to cite the history of one patient to illustrate this point:

Case II. Miss M. H., aged nineteen, student nurse. Her chief complaints were of feeling tired and worn out, no appetite, listlessness, nervousness, headache and supra-orbital neuralgia. Her menses were irregular and periods were often missed. Her weight was 110 pounds, thirty pounds below her normal weight; the pulse rate varied from 90 to 125; systolic blood pressure was 112, diastolic pressure, 86. The thyroid gland was moderately and symmetrically enlarged; her eyes were large and suggested beginning exophthalmos, and she had a fine tremor of the hands. The clinical picture thus resembled early exophthalmic goiter very closely, but the basal metabolism on February 7, 1922, showed a rate of -6 per cent. The clinical diagnosis of the physicians who had seen her was toxic goiter and they were reluctant to give up this diagnosis on account of the close resemblance to exophthalmic goiter. One physician in another city strongly urged her to be operated for removal of the thyroid gland to relieve the toxic symptoms. In view of the basal metabolism, this would certainly have been wrong. Basal metabolic tests made in July, September and October, 1922, gave rates of -7 , -11 , and -12 per cent. She has since married, has gained in weight, and is apparently in good health.

This case is apparently one of colloid goiter with a tendency to hypothyroidism instead of hyperthyroidism. There was probably also deficiency in connection with other endocrine glands. Basal

metabolism in this case was of much value in arriving at the correct diagnosis, in indicating the proper line of treatment and in preventing operation, which was contraindicated.

Cases with tachycardia as the chief symptom are numerous, and a certain percentage of these have an underlying basis of hyperthyroidism. Physical examinations made on large numbers of soldiers and recruits during the recent war brought forcibly to our attention the condition variously called neurocirculatory asthenia, effort syndrome, disordered action of the heart, etc., in which the resemblance to hyperthyroidism is marked. In all cases of tachycardia and cardiac irritability a basal metabolic test is very important to determine whether or not the thyroid is concerned as an etiological factor or whether the symptoms are all due to other causes. There is a condition of instability of the nervous system characterized especially by various symptoms of cardio-vascular irritability and excitement which Lieb, Hyman and Kessell have designated "autonomic imbalance," the symptoms of which resemble hyperthyroidism very closely. In fact, these authors state that the symptoms may be identical with the exception of the absence of an increased basal metabolic rate characteristic of hyperthyroidism. The following case history is an example of neurocirculatory asthenia with colloid goiter:

Case III. B. C., male, aged twenty-nine, single, entered military service September 19, 1917, and was discharged January 26, 1919. In May, 1918, he first noticed dyspnoea on exertion, as when doing double time. In September, 1919, he began to feel exhausted and weak, developed tachycardia and sweating, trouble in sleeping, and could not lie on his left side. His pulse rate was 116; systolic blood pressure was 150, diastolic, 88. The thyroid gland was soft and uniformly enlarged, there was a fine fibrillary tremor of the hands and a sweating skin. A basal metabolism test showed —10 per cent, which ruled out hyperthyroidism.

Tuberculosis is another condition often attended by symptoms of rapid heart action, debility, nervousness and tremor, which may resemble hyperthyroidism closely. The basal rate in this disease is normal unless there is sufficient disturbance of the temperature curve to cause a distinct increase of the metabolic rate.

Outside of exophthalmic goiter and hyperthyroidism, there are few conditions which consistently show an increased basal metabolic rate. Studies of the basal metabolism have been made in various endocrine disorders, other than those of the thyroid gland, with no very important results. In the active stage of acromegaly, in which there is overactivity of the pituitary gland, the

basal metabolic rate is usually slightly or moderately elevated above the normal range, but in the later stages of acromegaly, with hypopituitarism, it declines and may be below the normal range. In pernicious anemia and leukemia, the metabolic rate is practically always considerably above the normal, the cause of which is not very clear.

Owing to the fact that conditions associated with lessened thyroid activity are not so common as those associated with increased thyroid activity, and that disturbing factors practically always tend to increase the rate rather than to decrease it, metabolic rates below the normal range are not so frequently obtained as rates above the normal range. Myxedema and cretinism are the most important conditions which are characterized by decreased basal metabolic rates. Cases of myxedema in which the thyroid gland has been completely destroyed by disease or completely extirpated by operation, have a basal rate, according to Plummer, of between —30 and —40 per cent. The edema of myxedema does not develop until a rate of at least —15 per cent is reached. It has been found that one milligram of thyroxin given intravenously will elevate the metabolic rate approximately 2 per cent in a man weighing 150 pounds. It is an easy matter in myxedema, by making repeated basal metabolic tests, to determine the exact amount of thyroid extract or thyroxin required to bring the rate up to normal and to maintain it at this point. Basal metabolism in cretinism is not of much clinical value, on account of the age of the patients when first seen, and the fact that in later life they usually have been taking thyroid extract which modifies the rate.

Many cases of mild or moderate hypothyroidism have few evident symptoms resulting from the lack of thyroid secretion. Among these symptoms are obesity, dry skin and hair, falling hair, cold hands, edema, puffiness of the ankles, slow pulse, mental sluggishness, etc. A correct understanding of the underlying basis of these cases may be entirely dependent on the result of basal metabolic determinations. Such cases are important to recognize as they offer such favorable promise for marked benefit following appropriate treatment with thyroid extract or thyroxin.

Decreased basal metabolic rates are also seen, as mentioned before, in conditions of hypopituitarism, as seen in the later stages of acromegaly. Decreased rates are obtained also in cases of marked debility and inanition, such as result from inability to take sufficient food or to retain it, as occurs in such conditions as starvation, esophageal stricture, cancer of the stomach, etc.

McCaskey has summarized the various conditions in which routine determinations of basal metabolism are worth while: (1) In all cases of definite goiter and especially if associated with health disturbances to ascertain the degree, if any, of toxicity. (2) In a large group of cases,

either with or without goiter, with symptoms resembling, either closely or remotely, those of thyrotoxicosis. Among the symptoms suggesting investigation along these lines are:

- (1) Psychoneurotic disturbances.
- (2) Circulatory disturbances.
 - (a) Tachycardia or bradycardia.
 - (b) Cardiac myasthenia.
 - (c) Certain arrhythmias.
- (3) Fine tremors.
- (4) Hyperhidrosis or hypohidrosis.
- (5) General debility.
- (6) Loss of weight.
- (7) Slight temperature disturbances.

In conclusion, a few words regarding the actual making of these tests. These are made in the early morning in the post-absorptive period, twelve to eighteen hours after taking food. The patient is directed to eat a light supper, get a good night's rest, eat no breakfast and drink no water, take no medicine of any kind, smoke no tobacco on the morning of the test, and to be as quiet as possible. It is best to have the patient spend the night in the hospital and to be brought to the metabolism room in a wheel-chair. It is usually permissible for the patient to be brought from his home in an automobile, but it is not a good plan for him to walk in, although if he rests in a reclining position for a sufficient length of time, the results will probably be little different from those obtained after less exertion. A preliminary rest in a reclining position for twenty to thirty minutes or longer, is required. If the patient has exerted himself very little, this period need not be very long. If the rest period be prolonged too much the patient is apt to become restless, thereby defeating the object of the preliminary rest period. Standard conditions also require that no breakfast be eaten on the morning before the test, but it may be possible that discomfort arising from hunger might itself cause a rise in the basal metabolic rate as much or more than would a light, non-stimulating breakfast. Benedict has done some experimental work along these lines with a breakfast, furnishing about 250 calories with the results which seem to indicate that a meal of this type has little effect on basal metabolism measurements in normal persons, if completely eaten at least one hour prior to the actual tests. For the present, however, it is best to insist on no breakfast before the test is made.

Inquiry should always be made regarding conditions which might influence the patient and cause erroneous results. Thus, a cold, a headache, a restless night, discomfort arising from the mouthpiece or mask, an uncomfortable position, a fly alighting on the face or hands, and numerous other conditions, may cause sufficient discomfort and lack of complete relaxation to materially influence the result of the test. During the progress of the test, the pulse and respiration rates are taken at frequent intervals and at the conclusion

the blood pressure, the weight (stripped), temperature, and the height are taken.

It will be seen, therefore, that in conducting these tests very close attention to details is necessary in order to avoid disturbing factors which might so influence the result that a false interpretation of the clinical condition might be made. With the exercise of proper care, however, results are obtained in suitable cases which are of distinct value in many clinical conditions.

REFERENCES

- Boothby, W. M. and Sandiford, Irene: Basal Metabolism Determinations. Philadelphia, Saunders 1920, pp. 115.
- Boothby, W. M.: The Fundamental Classification of Disease by the Basal Metabolic Rate. *Journal American Medical Association*, 1921, lxxvi, 84-86.
- Plummer, H. S.: The Clinical and Pathologic Relationship of Hyperplastic and Nonhyperplastic Goiter. *Journal American Medical Association*, 1913, lxi, 650-651.
- Benedict, F. G.: The Management and Standards of Basal Metabolism. *Journal American Medical Association*, 1921, lxxvii, pp. 247-250.
- Benedict, C. G., and Benedict, F. G.: A Permissible Breakfast Prior to Basal Metabolism Measurements. *Boston Medical and Surgical Journal*, 1923, 188, No. 22, 849.
- Lieb, C. C., Hyman, H. T., and Kessel, L.: A Study of Exophthalmic Goiter and the Involuntary Nervous System. *Journal American Medical Association*, 1922, lxxix, 1099-1101.
- Kessel, L., Lieb, C. C., and Hyman, H. T.: A Study of Exophthalmic Goiter and the Involuntary Nervous System. *Journal American Medical Association*, 1922, lxxix, 1213-1215.
- McCaskey, G. W.: Basal Metabolism Determination in General Internal Diagnosis. Clinical Application with Illustrative Cases. *Journal American Medical Association*, 1920, lxxiv, 927-931.

THE THERAPEUTIC USE OF DIGITALIS WITH ESPECIAL REFERENCE TO ITS INTRAVENOUS INJECTION

STATEMENT OF COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION

The Council has long held that digitalis effects can be obtained satisfactorily in most instances by the oral administration of digitalis itself, the tincture or the infusion, and that the intravenous administration of digitalis preparations is rarely necessary. However, investigation indicates that digitalis preparations are administered intravenously far more frequently than seems to be demanded. Because of the importance of digitalis therapy, the Council decided to appoint a committee composed of men who have made a study of questions concerning the administration of digitalis, and to request this committee to prepare a report for publication which would set forth concisely the limitations of digitalis therapy and the methods of obtaining digitalis effects. This report by G. Canby Robinson, Nashville, Tenn.; Paul D. White, Boston; Cary Eggleston, New York and Robert A. Hatcher, New York (*Journal A. M. A.*, Aug. 16, 1924), was prepared at the request of the Council. The Council has considered this report and has endorsed its publication. The committee protested against the intravenous use of the digitalis bodies as an emergency measure in cases of sudden heart failure when a careful study of the heart has not been possible. Sudden cardiac failure not infrequently results from a cause, such as coronary occlusion, which may affect the ventricles in such a way as to

render them liable to go into a state of fibrillation, which is fatal. At such a time a full dose of one of the digitalis bodies injected intravenously may bring about this unfortunate accident, just as these drugs almost invariably induce ventricular fibrillation when given in fatal doses to mammals experimentally. Auricular fibrillation is the one condition in which there is general agreement that the digitalis bodies are indicated. Patients with severe symptoms of cardiac failure produced by the rapid and irregular ventricular action of auricular fibrillation are often in urgent need of digitalis, and the question as to the best mode of administration is presented. Rapidity of action may predominate over all other considerations, and may appear to be a definite indication for the intravenous use of the digitalis bodies. In such cases, however, the myocardium may be severely damaged, and its condition may be such that a large intravenous dose of one of the digitalis bodies would be especially prone to set up ventricular fibrillation. There is little danger of this with the oral administration of ordinary doses. In other disturbances of cardiac mechanism, the digitalis bodies are by no means so clearly indicated as in auricular fibrillation. Members of the group, especially digitalis itself, have proved useful in cases of auricular flutter. Digitalis affects the heart in these cases in such a way as to favor a change to auricular fibrillation, which is then often replaced by the normal sinus rhythm. With the introduction of quinidin, however, probably a better drug for restoring the normal rhythm has been found. Digitalis is indicated in auricular flutter for another reason. When the ventricular rate is so rapid as to impair the cardiac efficiency, digitalis may bring about ventricular slowing by its power to depress the conducting system between the auricles and ventricles. In this way a degree of partial heart-block may be produced, which allows the ventricles to respond to a smaller portion of the auricular contractions, and so assume a slower rate. It may be said, therefore, that the digitalis bodies are indicated in auricular flutter when the ventricular rate is excessive, both from the fact that these drugs tend to cause a disappearance of the abnormal auricular activity and because they bring about an improvement in cardiac efficiency by ventricular slowing. Premature contractions, or extrasystoles, have long been known as one of the early signs of excessive digitalis medication. In spite of this fact, their existence in a patient who has not recently received digitalis should not be taken as a contraindication for the use of these drugs. Under some circumstances, premature beats disappear under digitalis medication. The digitalis bodies have proved of no constant value in paroxysmal tachycardia, although in prolonged attacks, in which

evidence of myocardial failure may supervene, digitalis should be used with the hope of improving the cardiac efficiency even without influencing the excessive cardiac rate. In cases of heart-block, special care and judgment are needed in the use of the digitalis bodies. Depression of conduction is one of the most definite effects that they produce. Therefore, in partial heart-block when further interference with the passage of cardiac impulses from auricles to ventricles may be injurious, the digitalis bodies are contraindicated. Although complete heart-block is not a contraindication for digitalis, the drug should be withheld in cases of temporary heart-block when a return of the normal beat is anticipated. In myocardial insufficiency, benefit is often derived from the use of digitalis and its allies, though there is no abnormality of rhythm. The use of the digitalis bodies is justified when any symptom or group of symptoms is present which can be accounted for by no other cause than myocardial insufficiency. Definite benefit may be derived from the use of large oral doses of digitalis by patients having so-called chronic myocarditis who show signs of cardiac failure. The drug is especially effective in patients with edema who show no signs of aortic insufficiency. The indications for the drugs of the digitalis group are not altered by the presence of a lesion of one or several of the heart valves, except so far as such lesions make it especially desirable to have the myocardium at its best. However, perhaps less is to be expected of these drugs in the presence of aortic insufficiency than when this lesion is absent. The oral administration of digitalis in the form of the standardized powdered leaf, infusion or tincture, meets every requirement of digitalis therapy, with the exception of those relatively infrequent cases in which immediate relief (within two hours) is imperatively demanded, or when nausea or vomiting precludes the oral method. When the threatening condition of the patient demands immediate relief and there is no contraindication for the use of digitalis bodies, strophanthin or crystallized ouabain should be injected intramuscularly or intravenously. Great care must be exercised in this method of using any digitalis body in patients who have recently received digitalis or any of its substitutes. When nausea or vomiting due to causes other than digitalization precludes the oral administration, tincture of digitalis may be administered by the rectum until nausea or vomiting has ceased, after which the digitalis may be administered orally if it is required. Ouabain may be kept in hard glass ampules or in buffered solution for several months without appreciable change. Physicians should see that pharmacists have available hypodermic tablets containing 0.1 mg., 0.25 mg. and 0.5 mg. (1/650, 1/250, 1/130

grain). These may be dissolved in 1 c.c., 2.5 c.c. or 5 c.c. (15, 40 or 75 minims) of sterile physiologic sodium chlorid solution and injected intravenously or intramuscularly. The proprietary preparations of digitalis and its principles have no advantage over digitalis, crystalline ouabain and amorphous strophanthin.

THE MEDICAL PROFESSION AND THE INDIANA WORKMEN'S COMPENSATION LAW*

JOHN S. TAYLOR
SULLIVAN

The underlying principle of workmen's compensation is that industry should bear the burden of its accidents, and the cost thereof should be added to the selling price, as a part of the operating expenses of the business, and thereby distributed among the consumers and ultimately borne by them.

Upon this principle the first workmen's compensation law in the world was enacted in Germany on July 6, 1884. The principle has been received with much favor, in fact so much so that forty-two of the civilized nations of the world have such laws, and only seven of these United States do not now have such a law. In our own state of Indiana, the Workmen's Compensation Act was passed in 1915.

By way of preliminary to the treatment of the sections of the Indiana Workmen's Compensation Act which pertain and are interesting to the physician and surgeon, permit me to say just a word about the organization which has furnished whatever groundwork I may have for this address. The act provides for the formation of mutual or reciprocal insurance associations by groups of employers subject to certain conditions and restrictions as may be fixed and imposed by the Industrial Board of Indiana. By virtue of this provision of the law, the Lynch Coal Operators' Reciprocal Association, with offices at Terre Haute, Indiana, was formed. The law firm of Hays & Hays, of Sullivan, Indiana, handled the legal phase of the organization of this association, and has continued since in the capacity of its general counsel. Since 1919 claims for said association, in the form of cases before the Industrial Board of Indiana, to the number of about four hundred annually, have been set and disposed of. For this work Mr. A. C. Owens and your speaker, of said firm, have made special and intensive study and preparation, including not only careful examination from time to time of many of the compensation laws of other states, but the following from month to month of the courts of last resort in Indiana and elsewhere, in their interpretation of the several existing Workmen's Com-

pensation laws. Special treatises upon these different enactments are at hand by regular and continuing subscriptions containing the very latest legal decisions, as well as articles by eminent physicians and surgeons upon this most important subject. In addition to the compensation work incident to the services rendered the Lynch Coal Operators' Reciprocal Association, which comprises about seventy-five per cent of all the coal mining compensation business in district eleven of Indiana, we represent other insurance companies and several employers who carry their own risks. The contact which I have made heretofore with some of you gentlemen in the local coal field in this line of business, gives rise to my presence here this evening.

Under the Indiana Workmen's Compensation Act, following an injury to an employee by an accident arising out of and in the course of his employment, the employer is required to furnish an attending physician and such surgical, hospital, and nurse's services and supplies as may be reasonably necessary. If the disability resulting from such injury extends beyond seven calendar days from the date thereof, the employer is required to begin compensation payments on the eighth day. If permanent partial impairment follows the total disability period of the employee as an end result, the employer is required to pay additional compensation according to the degree of such permanent impairment, and if death results from the injury within 300 weeks, in addition to the furnishing of an attending physician, surgical, hospital, and nurse's services and supplies, and total disability compensation, the employer is required to pay weekly compensation for the remaining part of 300 weeks to the dependants of the employee, if any, according to the extent of their relative dependency, and burial expenses of such employee, not exceeding \$100.

In the Indiana Workmen's Compensation Act, care has been taken to protect the physician and surgeon against loss for services rendered injured employees. The law provides that every policy form of any insurance company or reciprocal insurance association shall be approved by the Industrial Board. Foremost in the provisions of each form of policy is that whereby the insurer assumes in full all the obligations to pay physicians' fees, nurses' charges and hospital services and supplies, as well as burial expenses and compensation or death benefits. Upon any failure or refusal on the part of such insurer to pay the final judgment or award or physicians' fees, and other financial obligations imposed, the Industrial Board is required to revoke the approval of the policy form of such insurer until it shall have paid such award or judgment or complied with the violated provision or provisions of the act, and shall have re-submitted its policy form and again received the approval of the Industrial Board. In case the employer does not insure, but elects

*Read before the Sullivan County Medical Association, May 7, 1924, and before the Vigo County Medical Association, May 27, 1924, and recommended for publication in *THE JOURNAL*.

to carry his own risk, the Board may, at its discretion, require such employer to make deposit of an acceptable security, or indemnity bond to secure the payment of compensation liabilities as they are incurred. Under another section of the law, it is provided that the state, any political subdivision thereof, any municipal corporation, any corporation, partnership or person, contracting for the performance of any work, without exacting from the contractor a certificate from the Industrial Board showing that such contractor has complied with Section 68 of this act, shall be liable to the same extent as the contractor for compensation, physicians' fees, hospital fees, nurses' charges, and burial expenses on account of the injury to, or the death of any employee of such contractor, and any principal contractor, intermediate contractor, or sub-contractor, who shall sublet any contract for the performance of any work, without requiring from such sub-contractor a certificate from the Industrial Board, showing that such sub-contractor has complied with said Section 68, shall be liable to the same extent, as such sub-contractor for the payment of compensation, physicians' fees, and other financial obligations incident to the injury or death of any employee of such sub-contractor, due to an accident arising out of and in the course of the performance of the work covered by such contract or sub-contract. Notwithstanding these provisions of the law, which are designed to fully protect the physicians for payment for their services, the physician should look to the injured employee for pay for such services unless the employer, or the employer's insurance carrier employs the physician to take charge of the case. It is only under certain peculiar conditions, which will be hereinafter treated, that the physician may step in, and attend an injured employee, and be guaranteed, under the Compensation law, payment for his services, without direct employment by the employer of such injured employee.

Definitions of "accident" and "injury" which have been recognized and cited with approval in Indiana, are: "An accident is an unlooked-for mishap or untoward event, not expected or designed." "In common speech, the word 'injury' as applied to a personal injury to a human being, includes whatever lesion or change in any part of the system produces harm or pain or a lessened facility of a natural use of any bodily activity or capacity." Occupational diseases have been generally held not compensable. Occupational diseases may be defined as a condition of some part of the body which is the natural result of following a particular occupation for a considerable period of time, which may be disabling, but which comes on gradually and is not an unlooked-for mishap, or untoward event, not expected. It has been held that the taking into the lungs of emery and metallic dust, through the continued process of breathing and swallowing over a period

of three or four years, by an employee who was a grinder and polisher of metals, as a result of which he gradually became affected to such a degree that he became sick and unable to work, was not an injury from an "accident" for the reason that the employee had knowledge of the increasing effect of the breathing of said dust-laden air upon him, and of the fact that he was gradually becoming disabled thereby. In the case cited, the taking of the dust into the employee's body was both foreseen and known by him from day to day, and he could see, and had reason to anticipate, that more serious consequences would follow. The Act provides "injury" and "personal injury" shall mean only injuries by accident arising out of and in the course of employment, and shall not include a disease in any form except as it shall result from an injury. An accident and an injury are two essentially different things. The former is the cause, and the latter the result. The employer is required to furnish medical aid for thirty days after the injury. The injury takes place when it becomes manifest so that it may be diagnosed. For illustration, a workman met with an accident on February 17, 1916, but the injury resulting therefrom did not become manifest until March 19th, or on the thirty-first day after the accident. The employer was required to furnish medical aid for thirty days beginning March 19th.

The fees of physicians are divided into two classes, one of which should be subject to the approval of the Industrial Board, and the other should not be. An employer, generally speaking, may, therefore, become liable for such fees in one of two ways, viz: By contract, either expressed or implied, made with the physician; or by a physician treating an injured employee when called to do so under an emergency caused by the employer's failure to provide medical care, or for other good reason. In the way first named, the employer assumes the liability incurred and has an opportunity to protect himself against excessive charges by contract, and even to obtain such services at less than the prevailing charges by special arrangement, but in the way last named, liability, instead of being voluntarily assumed by the employer, is imposed upon him by statute under circumstances in which usually he would have no opportunity to protect himself against excessive charges. In view of this fact, and the well recognized custom among at least a portion of the medical profession to base their charges for services in part upon the ability of the one liable therefor to pay, the legislature evidently intended to make the fees of physicians, where services were rendered in the way last named, subject to the approval of the Industrial Board. It has been held that the Industrial Board does not have jurisdiction to make an order fixing the fee of a physician except in a case in which such physician was called to render services under an emergency caused by the employer's failure to provide

medical care, or for other reason adjudged by the Industrial Board to be sufficient.

A very good policy, one which is followed by the Lynch Coal Operators' Reciprocal Association, and others, to our knowledge, with reference to furnishing attending physician, and surgical, hospital and nurse's services and supplies, is to furnish same from the date of the injury just as long as there is total disability, and the injured part or member of employee has not reached maximum recovery, without reference to any limitation of thirty to sixty days, as seems to be the limitation fixed in the Act. In many instances, under this policy, the employer or insurance carrier will provide physician's services, surgical, and hospital supplies for several months next following the date of the injury, or just as long as the employee's condition yields to treatment or repair. This policy is highly approved, first, because it is a humane one, in that it results in the shortest possible disability to the injured employee, and the best possible end results in that it tends to bring about the greatest possible repair to the injured employee, thereby reducing, oftentimes, to the smallest minimum, the permanent impairment resulting from the injury. The injured employee approves the policy because its effect is to save him from loss of wages by returning him, as speedily as possible, to his gainful occupation. In addition to its humane feature, and the fact that it is approved by the injured employee, the employer, under such policy, should find the investment in physicians' services more economical, in the long run, than the payment of additional compensation to the injured employee, resulting from furnishing attending physician only for the limited time, thirty to sixty days, as seems to be the legislative intent of the law. Therefore, economy, both to the injured employee, as well as the employer, would favor liberal use of services of attending physicians and surgeons. The policy just discussed, to be operated to advantage, necessitates the use of physicians and surgeons of the highest qualifications. In many instances they are free to use the best and most approved operative means of repair and correction of physical defects. Some of the results obtained have been almost miraculous in their approach to perfection. Very few instances are known in which the end results have not been highly satisfactory to all parties concerned.

The pecuniary liability of the employer for medical, surgical, and hospital services required is limited by the law to such charges as prevail in the same community for similar treatment of injured persons of a like standard of living when such treatment is paid for by the injured person.

The Industrial Board or any member thereof, may, upon the application of either party, or upon its own motion, appoint a disinterested and duly qualified physician or surgeon to make any necessary examination of the employee and to testify

in respect thereto. Such physician or surgeon shall be allowed traveling expenses and a reasonable fee to be fixed by the Board, not exceeding ten dollars, for each examination and report, but the Board may allow additional reasonable amounts in extraordinary cases. The fees and expenses of such physician or surgeon shall be paid by the state. "The fees of attorneys and physicians and charges of nurses and hospitals for services under this act, shall be subject to the approval of the Industrial Board * * * The Industrial Board may withhold the approval of the fees of the attending physician in any case until he shall file a report with the Industrial Board on the form prescribed by such Board." Singularly enough, the law seems to be that an appeal lies from the order of the full Industrial Board approving the charges of a physician, but there is no right of appeal from the order of the Board approving or disapproving attorney's fees. When a physician's services are rendered under a contract with the employer, the fees therefor are not subject to the approval of the Industrial Board.

After "an injury and during the period of resulting disability, the employee, if so requested by his employer, or ordered by the Industrial Board, shall submit himself to examination at reasonable times and places by a duly qualified physician and surgeon, designated and paid by the employer. The employee shall have the right to have present at any such examination any duly qualified physician or surgeon provided and paid by him. No fact communicated to or otherwise learned by any physician or surgeon, who may have attended or examined the employee, or who may have been present at any examination, shall be privileged, either at the hearing provided for in this Act, or any action at law brought to recover damages against any employer, who may have accepted the compensation provisions of this Act. If the employee refuses to submit himself to, or in any way obstructs, such examination, his right to compensation, and his right to take or prosecute any proceeding under this act shall be suspended until such refusal or obstruction ceases, and no compensation shall, at any time, be payable for the period of suspension unless, in the opinion of the Industrial Board, the circumstances justify the refusal or obstruction. The employer, or the Industrial Board, shall have the right in any case of death, to require an autopsy at the expense of the party requiring the same." Under this provision of the law, the rule making certain communications between a patient and physician privileged, and not the subject of general inquiry which may be adverse to the patient, is abrogated. A physician, therefore, who has treated or examined an injured employee professionally, whether at the instance of the employee or employer, or the Board, when lawfully subpoenaed as a witness, is bound to appear before the Industrial Board, and

answer questions pertaining to the merits of the injured employee's case. It has been our experience that the medical profession has been very helpful in rendering its assistance in compensation cases, and that subpoenas are rarely used in procuring the presence of physicians for testimony in litigated cases. Occasionally, there is a physician or surgeon who will examine an injured employee at his instance, or that of the employer prior to and for the express purpose of testifying at the hearing in the case, who, on account of alleged pressing business or for some other reason, does not appear as a witness, notwithstanding the provision of the law next hereinbefore treated. This does not seem to be in line with the ethics of the medical profession, or the intent and purpose of the compensation law.

Before an employer is charged, in law or morals, with the duty of compensating an injured employee, the employee must first discharge his primary duty, owing to himself and society, to make use of every available means to make himself whole. He must see to it that the employer has knowledge of the injury. The refusal, by an injured employee, without just cause of the services of a competent physician, furnished by the employer, generally has the effect of suspending compensation during the period of such refusal. An injured employee, by his intentional and deliberate failure and refusal to comply with the reasonable requirements of the attending physician, by reason of which the period of disability is prolonged, is not entitled to compensation for the period during which his disability is prolonged. The persistent refusal of an employee to accept medical attention provided by the employer deprives him of the right to compensation, and also of the physician employed by him, the approval of his claim for services. An injured employee, who persistently refused medical treatment provided by the employer, and instead relied upon prayer in accordance with the belief of the "Holy Rollers," whereby recovery was retarded, and the period of disability prolonged, was denied compensation. With reference to operations, the prevailing rule is that where an operation is not dangerous and offers a reasonable prospect of restoration and relief from existing incapacity, from which a workman is suffering, he must submit or release his employer from compensation liability upon the ground that from the date of his refusal, disability is not the result of the injury but of the workman's wilful misconduct in refusing the operation. The question of whether or not an operation is proper treatment is held to be a question for the determination of the Board. The unreasonable and wilful refusal of an injured employee to submit to a surgical operation, not attended by danger to health or life or by extraordinary suffering, which will cure him when so advised by his attending physician, will deprive the employee from compensation for a permanent impairment

resulting from such refusal to submit to such operation. The reasonableness of an employee's refusal to submit to a surgical operation is held to be a question of fact for the determination of the Industrial Board.

Section 31 of the Indiana Workmen's Compensation Act is as follows: "For injuries in the following schedule, the employee shall receive in lieu of all other compensation, on account of said injuries, a weekly compensation of fifty-five per cent of his average weekly wages for the periods stated, for said injuries respectively, to-wit:

(a) Amputations: For the loss by separation, of the thumb, sixty weeks, of the index finger, forty weeks, of the second finger, thirty-five weeks, of the third or ring finger, thirty weeks, of the fourth or little finger, twenty weeks, of the hand by separation below the elbow joint, two hundred weeks, of the arm above the elbow joint, two hundred and fifty weeks, of the big toe, sixty weeks, of the second toe, thirty weeks, of the third toe, twenty weeks, of the fourth toe, fifteen weeks, of the fifth or little toe, ten weeks, of the foot below the knee joint, one hundred and fifty weeks, and of the leg above the knee joint, two hundred weeks. The loss of more than one phalange of a thumb or toe shall be considered as the loss of the entire thumb or toe. The loss of more than two phalanges of a finger shall be considered as the loss of the entire finger. That the loss of not more than one phalange of a thumb or toe shall be considered as the loss of one-half of the thumb or toe and compensation shall be paid for one-half of the period for the loss of the entire thumb or toe. That the loss of not more than two phalanges of a finger shall be considered as the loss of one-half the finger and compensation shall be paid for one-half of the period for the loss of the entire finger.

(b) Loss of use: The total permanent loss of the use of an arm, hand, thumb, finger, leg, foot, toe or phalange shall be considered as the equivalent of the loss by separation, of the arm, hand, thumb, finger, leg, foot, toe or phalange and the compensation shall be paid for the same period as for the loss thereof by separation.

(c) Partial loss of use: For the permanent partial loss of the use of an arm, hand, thumb, finger, leg, foot, toe or phalange, compensation shall be paid for the proportionate loss of the use of such arm, hand, thumb, finger, leg, foot, toe or phalange.

(d) For injuries resulting in total permanent disability, five hundred weeks.

(e) For the loss of both hands, or both feet, or the sight of both eyes or any two of such losses in the same accident, five hundred weeks.

(f) For the permanent loss of the sight of an eye or its reduction to one-tenth of normal vision with glasses, one hundred and fifty weeks, and for any other permanent reduction of the

sight of an eye compensation shall be paid for a period proportionate to the degree of such permanent reduction.

(g) For the permanent and complete loss of hearing, one hundred weeks.

(h) In all other cases of permanent partial impairment, compensation proportionate to the degree of such permanent partial impairment, in the discretion of the Industrial Board, not exceeding five hundred weeks.

(i) In all cases of permanent disfigurement, which may impair the future usefulness or opportunities of the employee, compensation, in the discretion of the Industrial Board, not exceeding two hundred weeks.

(j) For injuries causing temporary total disability for work there shall be paid to the injured employee during such total disability but not including the first seven calendar days thereof, a weekly compensation equal to fifty-five per cent of his average weekly wages for a period not to exceed five hundred weeks.

(k) For injuries causing temporary partial disability for work compensation shall be paid to the injured employee during such disability, but not including the first seven calendar days, a weekly compensation equal to fifty-five per cent of the difference between his average weekly wages and the weekly wages at which he is actually employed after the injury, for a period not to exceed three hundred weeks. In case the partial disability begins after the period of temporary total disability, the latter period shall be deducted from the maximum period allowed for partial disability.

(l) No compensation shall be allowed on account of injuries producing only temporary total disability to work or temporary partial disability to work for the first seven calendar days of disability resulting from such injuries except the benefits provided for in Section 25; but if disability extends beyond that period, compensation shall commence with the beginning of the eighth day of such disability.

In computing compensation under the foregoing section, the law provides that "the average weekly wages of an employee shall not be considered to be more than twenty-four dollars (\$24) or less than ten dollars (\$10)." It is further provided that "if an injured employee refuses employment suitable to his capacity, procured for him, he shall not be entitled to any compensation at any time, during the continuance of such refusal, unless in the opinion of the Industrial Board, such refusal was justifiable."

I shall now go directly to the medical issues which are litigated before the Industrial Board. Naturally, in proper sequence, the first question to be determined is whether the complainant received a compensable injury. In this, I have reference only to the medical and physical aspects of a given case, without reference to the question of

liability of the employer under the general provisions of the law. Employees occasionally undertake to prove an injury when the condition complained of was due to an experience outside of and dis-associated with his employment. For illustration, a young man undertook to prove an injury from a bruise between a car and a rib of coal in the mine, resulting in an abscess in the groin, when the abscess was due to an infected knee which resulted from an abrasion sustained in playing basketball. Before the evidence was in, the employee's claim was dismissed. The physician is called upon to testify not only to medical questions but to lay facts concerning appearances and conclusions drawn from such facts. It is difficult to draw the line of demarcation between disease and injury. Upon the question the cases seem to somewhat overlap, and there is no definite precedent to be followed. Whether a given physical experience accelerated or aggravated an existing weakened condition or disease, or whether it revived or made active an unknown latent diseased condition are also questions which are frequently presented. The findings in cases of this kind are not uniform, depending upon the facts in each given case.

After compensation has been paid under an agreement or an award, the question to be determined is whether there has been a change in the physical condition of the injured employee, and whether, in consequence thereof, disability has diminished or ended; or, whether the injury has resulted in permanent partial impairment; or, whether employee without just cause therefor has refused the services of the physician provided by employer, or has refused to submit himself to examination by a duly designated physician of his employer. Upon any of these grounds of complaint, a change in conditions must be proven as a condition precedent to relief. Determination of any change of this character is largely a medical question. It has been held in Indiana that the law does not require that members of the Industrial Board shall possess any special qualifications. There is no presumption that they have the requisite knowledge and skill to enable them to determine, without assistance, the extent of an injury from a given condition, or the result thereof. From this it would seem that the Industrial Board is required to look to competent medical evidence as a basis for the determining of their finding in a given case as to physical condition of an injured employee. At any rate, the evidence and opinions of physicians, it would seem, must be taken into consideration, along with all the other evidence in the case, by the Industrial Board in reaching its decision.

An article entitled: "Details of Physical Examination" in the May 12, 1923, issue of the *Journal of the American Medical Association* is very thorough as an outline and basis for determining and recording the physical condition of injured

employees. In determining the real physical condition, the finding and award must be based upon proof, the burden of which is on the injured workman, and must be sustained by evidence on more than mere guess, conjecture, surmise or possibility. This applies to testimony of a physician as well as to that of lay witnesses. The physician should, at the first aid attention if practicable, and if not, as soon thereafter as is possible, ascertain and record every known complaint of the injured workman after some well defined outline, as illustrated by the article above cited, including x-ray examination if the injury or complaint is of such character as to justify it. Without some such record, no physician can intelligently, several weeks or months following the date of an injury, state exactly and without question just what the injury included, and precisely what part or parts were involved.

After the initial injury and resultant disability period the question of changed conditions arises. It is then that the physician should be able to refer to his printed record for the exact first status of the case. At that time with such record he can determine whether there has been a change in conditions, and the extent thereof. Also, occasionally it happens that when a case is called for hearing which is predicated on changed conditions, sufficient time has not elapsed to determine the issue sought to be determined, in consequence of which a continuance is had on motion of either party or of the Board. When the case is again called, the question of changed conditions is again a condition precedent to determining the real issue in the case, and it is again necessary that the doctor have a written record of the plaintiff's condition, both as to the original injury and the condition of the injured employee at the date of the first hearing from which continuance was taken.

In this connection my observation has been that the physician who is careful and painstaking in reducing to writing the given case is the one who can testify in most positive fashion when called upon. He has a groundwork which, together with his knowledge and experience as a medical man, enables him to mount the witness stand with poise and confidence which add materially to the weight of his testimony. Again, from such a record, proper thought and preparation and a clear understanding of the real issue to be determined, the physician is enabled to respond more quickly to any question propounded. Being thus fortified he can the better withstand the attack of a rigorous cross-examination. The physician, as well as the layman, who is in greatest distress as a witness, is the one who is not certain of his ground, who is inclined to vacillate and follow the lead of counsel and drift with his personality along the line of least resistance. Such a medical witness is not infrequently encountered, although as a general rule most physicians make fairly good witnesses. In order to excell in this department of practice,

study and preparation is required. I don't know of any course of training along this particular line that is given in connection with the preparation of medical students for their degrees of M.D. Consequently, they must work out their own salvation in this regard.

The term "disability" has been defined under the Indiana Act as "inability to work," and the word "impairment" as "the loss of function." The former is used where the condition resulting from an injury for which compensation is sued for is temporary, and the latter is used where the resulting condition is permanent. The words "permanent partial impairment" refer to physical impairment and the clause must be construed to mean that the compensation awarded for injuries resulting in permanent partial impairment shall be in proportion to the degree of employee's physical impairment, and not his impairment of earning power. For the determination of the degree of permanent partial impairment, if any, resulting from fractures or broken bones, the article by Dr. John J. Moorehead, of New York, entitled "Measuring End Results After Injuries—A Suggested Percentage Basis," in the issue of the *Journal of the American Medical Association* under date of September 2, 1922, is very good. It denotes percentages as follows:

Function	60 per cent
Union	20 per cent
Contour	20 per cent

altogether making one hundred per cent for a perfect result. This suggested percentage basis fairly treats of the possibilities of end results in a satisfactory manner, both to the employee and employer. It might be well if this plan were adopted by the medical profession for the determination of end results involving fractures and breaks of bones. The compensation practice of attorneys and physicians is in great need of a basis for determining end results in all kinds of injuries. Without such basis, the question is not only perplexing to the attorneys and physicians, but to the Board members as well. Likewise, the employers and employees should greatly benefit by some sort of standardized method of determining or arriving at the amount of permanent partial impairment, if any, as an end result of a given injury.

There should be a uniform basis of computing loss of vision in eye cases. Most members of the medical profession generally, and particularly those who are termed ophthalmologists, seem willing to use the Snellen Chart System in determining visual acuity for distance. Why not adopt that, or a similar chart system, and let a standard eye with normal vision be one which can see at twenty feet rows of letters designed to be seen at that distance, and a totally blind eye one which cannot see at twenty feet what the normal eye should see at 220 feet? The factor of twenty feet would represent the distance at which rays

of light would enter the eye at an angle of five minutes. The law defines an industrially blind eye as one in which the sight is completely lost or reduced to one-tenth of normal vision with glasses. In such plan 20/20 would represent normal vision and 20/220 ten per cent vision. Each two feet of distance would be the equivalent of one per cent of vision. For illustration, an eye seeing at twenty feet what a normal eye should see at forty feet, would have a visual acuity for distance of ninety per cent of normal, or a loss of ten per cent; an eye seeing at twenty feet what the normal eye should see at 100 feet would have a visual acuity for distance of sixty per cent of normal, and loss of forty per cent. There have been some, principally laymen, who have had the idea that, on the basis of 20/20 representing a normal eye, a 20/40 eye is one in which the vision is only one-half that of the normal eye, and a 20/60 eye is one having only one-third normal vision, representing a loss of two-thirds vision. Such an idea is generally conceded by authorities to be erroneous and contrary to scientific principle. In addition to the central visual acuity for distance, there are the factors of peripheral vision, or visual field, and binocular single vision. The Majority Report of the Committee of the American Medical Association, Section of Ophthalmology, on estimating compensation for eye injuries, in Volume 79, page 1843 of the *Journal*, which is very thorough and comprehensive, states that compensation value for the loss to the essential factors of vision of an eye should be: 1. Industrial loss of central visual acuity for distance or for near, fifty per cent compensation. 2. Industrial loss of field of vision, twenty-five per cent compensation. 3. Industrial loss of binocular single vision, twenty-five per cent compensation. On such basis tests should be made for each of the three factors and the sum of the percentages of loss in each, if any, taken as a percentage of loss of vision in the eye. A uniform system of determining loss of vision in eye compensation cases which would include these three factors, with the central visual acuity for distance determinable as herein treated, would undoubtedly be fair to the injured and his employer, and should be welcomed by all those who are confronted with the problem of estimating loss of vision in compensation cases.

An element which is more or less abortive for both employer and employee is that of subjective symptoms. From my experience in this kind of litigation, I am unable to determine the basis upon which any physician or surgeon can value subjective symptoms. I have in mind certain physicians of highest character who refuse, absolutely, to give weight to so-called subjective symptoms in determining the issue in dispute. We encounter claimants who present cases in which all physicians admit there are no objective symptoms, that is, there is nothing that can be determined from a physical examination which could cause or bring

about the condition complained of. In cases of this kind resort must be had solely to the veracity of complainant. He may be essentially honest, and of highest character, yet it is only natural that he would resolve any doubt in his own favor, and speak for the feeling which might be catalogued as subjective symptoms, thereby sustaining his own claim. Many backs have been offered for sale with no recommendation except subjective symptoms. In many cases the fifth lumbar is the bone of contention. Until a satisfactory method of giving weight to subjective symptoms is determined, or they are eliminated entirely as basis of determining issues in compensation cases, dissatisfaction with results obtained, both as to employee and employer, will doubtless continue. This seems to be one barrier that cannot be satisfactorily negotiated by employees, employers, the medical profession, or the Industrial Board.

In hernia cases, resulting from injuries, the prevailing rule recognized by the Industrial Board is for the employee to accept an operation at the expense of the employer, or fifteen weeks' compensation in lieu thereof, as the basis of final disposition of said claim. Another interesting principle in determining end results is that illustrated by a fairly recent case in which a finding was made of fifteen per cent permanent loss of use of employee's left foot, and twenty-five per cent of the use of his right foot in the same injury. In such case the Board held that provision of the law should apply, viz: "That in all other cases of permanent partial impairment, compensation proportionate to the degree of such permanent partial impairment, in the discretion of the Industrial Board, not exceeding five hundred weeks" shall be paid. Following this principle, in a case in which there is an involvement of two or more fingers on the same hand, or two or more toes on the same foot, the question of permanent partial impairment shall not go as to the individual specific members, but shall go, in the first instance, to the entire hand, and in the second, to the entire foot. In other words, if two fingers on the right hand are injured, and are permanently impaired as an end result, the degree of permanent impairment is based upon the permanent loss of use, if any, to the right arm below the elbow. The hand, under the compensation law, is equivalent to the arm below the elbow, and two fingers involve the entire hand.

The Industrial Board is often perplexed at the wide differences in opinions of medical witnesses in a given case. These differences occasionally run from fifteen to sixty-five or seventy-five per cent apart. One wonders whether physicians are not too frequently influenced, not by the objective medical facts of the case in dispute, but by the standpoint of the particular side on which they happen to be called. Dr. S. A. Kinnier Wilson, of London, England, in an article entitled "Role

of Trauma in Etiology of Organic and Functional Nervous Diseases," appearing in the *Journal of the American Medical Association* under date of December 29, 1923, says: "A man famous in the Edinburgh Medical School of the middle of last century was Sir Robert Christison, of whom Lord President Inglis, the greatest Scottish judge of the same period, said: 'The professor went into the witness box, not in the spirit of a partisan, but in his proper office as a medical jurist, to aid the court and the jury in the elucidation of truth, and in securing the ends of justice.' Were this the ideal attitude of the medical and scientific witness, adopted more generally, there would be fewer unseemly disagreements on the part of those of us who are asked to express medical opinion in court cases, nor so much confusion." In some degree one can understand differences in opinion, and in interpretation, but one cannot understand or reconcile differences in observed facts.

The statement of the eminent physician is correct. Under the Indiana law, the physician is virtually a jurist, and the physicians, in a given case, the jury. The commonly known jury system, as provided under the old liability law, is virtually abandoned in favor of medical jurists. It, therefore, behooves the medical profession, not only to be highly ethical as practitioners, but highly honorable and truthful in their opinions as witnesses. It is just as much fraud to go too high in an opinion on permanent partial impairment as it is to fail to find an injury in a case where there is a bonafide injury. The physician, as a witness, without reference to whether he is called by the injured employee, or the employer, should be wholly non-partisan. He is an officer of the court called to assist the Industrial Board in determining the physical condition of an injured employee, and in estimating the permanent loss of use, if any, he has sustained. In this experience of the physician, he is not in a contest with another physician as to the medical opinion, and it is not his province to thereby necessarily show his su-

periority of intellect or skill over another physician. The prospect of being again called as a witness in the interest of the employee or the employer, as the case may be, and the resultant fee, should not influence the opinion or interest of the physician witness. In determining whether an injury has really occurred or not, or whether the estimate as to permanent partial impairment should be fifty per cent or twenty per cent, the physician should put himself in the place of the employer as well as the employee. He should tacitly ask himself: "If I were the employer, was claimant injured?"; as well as: "If I were making the claim as an employee, was I really injured?" Also, in determining the estimate of permanent partial impairment, the physician should put himself in the place of the one who shall, on the strength of his opinion, be required to pay compensation, as well as in the position of the one who has the injury and is to receive the money. These are only suggested tests by which the physician might arrive at a fair and equitable opinion in a given case.

I regard it a genuine privilege to be able to address you upon this vital subject, and to have the liberty of citing others to you as an example of medical practitioners, who, at all times, honestly, and to the best of your ability, endeavor to handle the cases of injured employees in accordance with the highest ethical standards of your profession, on the basis of fairness and equity, and impartially as to the injured or his employer. The Indiana Workmen's Compensation Act, and the adjudicated cases interpreting the same, is altogether a high compliment to the medical profession. It virtually endorses the profession as qualified, in skill and ability, as well as in character and integrity. Much, therefore, depends upon the performance of members of the medical profession, in the handling of cases of injured employees, and in testifying as witnesses in cases involving compensation, if the Indiana Workmen's Compensation Act is to be regarded a worthy substitute for the old liability law.

DONE BROWN, ANYWAY

"Mamma," said a little boy, who had been sent to dry a towel before the fire, "is it done when it is brown?"

MORE OR LESS

The difference between a house and a flapper is that a house always looks better when painted and shingled.—*Enquirer*.

HE WAS

Marie—"Oh, I wish the Lord had made me a man."

George (bashfully)—"He did. I am the man."

CALL TO ARMS

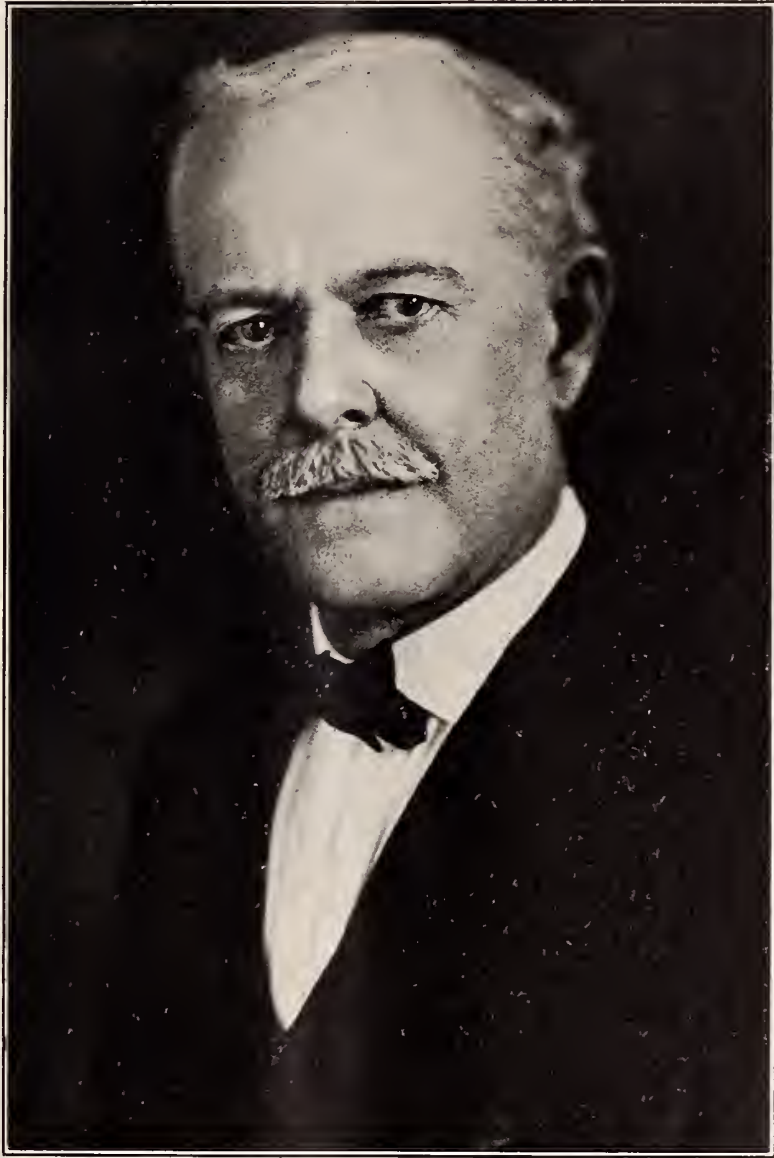
May—"The photographers never do me justice."

Ray—"You want mercy, not justice, dear."

DIPLOMACY?

Little Johnny had behaved beautifully at dinner before the guests until dessert arrived. "Mamma," he queried eagerly, "will the ice cream hurt me, or is there enough to go 'round?"

A lot of old, grouchy men who condemn bobbed hair would be tickled to death to have enough on top of their own heads to be able to get a bob or a shingle.—*Enquirer*.



SAMUEL E. EARP
INDIANAPOLIS
President Indiana State Medical Association
1924



A. A. RANG.
FIRST VICE PRESIDENT
WASHINGTON



JACOB T. OLIPHANT
THIRD VICE PRESIDENT
FARMERSBURG



CHARLES N. COMBS
SECRETARY & TREASURER
TERRE HAUTE



E. E. PADGETT
CHAIRMAN SURGICAL SECTION
INDIANAPOLIS



HARRY BOYD SNEE
CHAIRMAN EYE, EAR, NOSE AND THROAT SECTION
SOUTH BEND



C. G. BEALL
CHAIRMAN MEDICAL SECTION
FORT WAYNE



MERRILL DAVIS
SECRETARY SECTION ON SURGERY
MARION



E. M. SHANKLIN
SEC. EYE EAR NOSE AND THROAT SECTION
HAMMOND



B. G. KEENEY
SECRETARY MEDICAL SECTION
SHELBYVILLE

THE INDIANAPOLIS SESSION

The annual session of the Indiana State Medical Association will be held in Indianapolis on Wednesday, Thursday and Friday, September 24th, 25th and 26th, 1924.

It is quite fitting that an innovation by way of a program given largely by guests should be put into effect when the Association meets at not only the metropolis of the state but a place so centrally located and easy of access from every direction, for Indianapolis is known to have more separate railroads and interurbans than any other city in the country. Indianapolis and its attractions as a meeting place for the Association are so well known to the members that a detailed description and write-up of the same, following the usual custom, is superfluous. It is quite sufficient to say that arrangements have been made to care for the largest attendance in the history of the Association, for it is expected that not less than a

assignments and avoid last minute rushes. Those who come to Indianapolis without having made reservations in advance will be given every assistance in securing accommodations if their wants are made known at the registration desk.

PLACE AND TIME OF MEETING

The Claypool Hotel has been selected as general headquarters of the Association. There the members will register and there also will be held all of the meetings of the Association and this includes the meetings for the presentation of addresses as well as the meetings designated as dry clinics, with the one exception of the clinics on Friday morning only which will be held at the Indianapolis City Hospital.

On Tuesday afternoon at 5:00 o'clock the Council will hold its first meeting at the Severin Hotel, to be followed by the annual dinner. On Tuesday evening at 8:00 o'clock the House of Delegates will convene for its first meeting in the Assembly Room of the Claypool Hotel. The final meeting of the House of Delegates will be held in the Assembly Room of the Claypool Hotel on Friday at 8:00 a. m. and the final meeting of the Council will be held immediately thereafter.

In place of the usual smoker that has been a feature in former years the Association will be the guests of the Indianapolis Medical Society at a stag theater party to be given at the Capitol Theater which has been especially chartered for the occasion, on Wednesday evening, September 24th. The show has been dubbed "The Red Pepper Revue" or Burlesque DeLuxe with Mayor "Lew" Shank as Impressario and Censor. The tickets for the entertainment will be given out in the order of registration at convention headquarters.



Front View of City Hall Building

thousand doctors from Indiana will attend the session, and the character of the program and the invitations that have been extended to medical men in surrounding states indicate that there also will be a large attendance from outside of Indiana. The members of the Indianapolis Medical Society will act as hosts, and they extend a cordial greeting and welcome to the visiting doctors and their wives and friends.

HOTEL ACCOMMODATIONS

Indianapolis has a number of large hotels, with accommodations sufficient for all visitors, but except for those members who already have engaged their accommodations it has been thought best to have reservations made through Dr. C. R. Strickland, chairman of the Hotel Committee, who will see that each and every guest is supplied with accommodations. However, it is highly desirable that applications for accommodations be sent in to Dr. Strickland at once, so that he can make



Front View of Federal Building and Post Office

The general meetings and the general dry clinics for the united Sections will be held in the

Assembly Hall on the eighth floor of the Claypool Hotel. The dry clinics for the individual sections on Friday forenoon will be held at the Indianapolis City Hospital.

The public meeting will be held at the Cadle Tabernacle on Thursday evening at 8:00 p. m.

THE PROGRAM

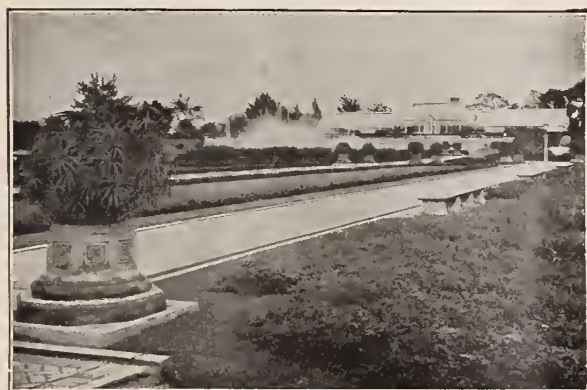
As already announced in earlier numbers of *THE JOURNAL*, the program this year will be given



Front View of John Herron Art Institute

largely by outside talent, and in one sense it will be "an all-star cast" because the addresses and clinics will be given by some of the most widely known teachers and clinicians in the United States. The plan is an innovation not intended to be a regular feature but worthy of trial in an endeavor to stimulate interest and perhaps better effort in the future on the part of our own members.

The membership will not be divided into sections as heretofore except on Friday forenoon only, as an attempt has been made to have all of the addresses of such practical importance that every member of the Association will be interested in hearing each one of them. Therefore, during the first two days of the session the members are to meet as a body. Each of the three sections of the Association will be represented by dry clinics in the forenoons, and addresses in the afternoons of



View of Sunken Gardens in Garfield Park

these two days. One hour in the forenoon and one hour in the afternoon will be given over to each of the three sections. On the last or final day the sections will divide, and each furnish its own program which naturally will be devoted more nearly to the specialty represented. Very little time has been provided for discussion, and for the very good reason that the eminent men who are taking part in the program must have sufficient time for a comprehensive presentation of their subjects and unless discussion is limited injustice will be done the various sections that are represented on the program.

GENERAL ENTERTAINMENTS

No entertainments have been arranged for Tuesday evening, inasmuch as it was thought best by the committee not to arrange any entertainment or meetings that would conflict with the meeting



Front View of Union Station Recently Remodeled

of the House of Delegates. The golfers and others who arrive in the city on Tuesday and are not engaged with the work of the House of Delegates will find entertainment at the numerous theaters and vaudeville houses, or in forming parties of their own.

On Wednesday evening the Indianapolis Medical Society will give a stag theater party at the Capitol Theater one square west of the Claypool Hotel at the corner of Capitol Avenue and West Washington Street. The theater has been chartered especially for the occasion, and the committee announces that the program will be a "Red Pepper Revue" or "Burlesque DeLuxe with Mayor 'Lew' Shank as Impresario and Censor." Admission will be by theater tickets only. Therefore it will be absolutely necessary for each member to register at the registration desk at the Claypool Hotel where the theater tickets will be given out in the order of registration.

On Thursday evening the Eye, Ear, Nose and Throat Section will give a dinner at the Athletic Club at six o'clock in honor of the visiting guests of the section. Tickets for this dinner are four dollars each and should be procured from Dr. D. O. Kearby, American Central Life Building, Indianapolis, not later than Monday, September 22nd, though those who expect to attend this dinner are asked to send their remittances immediately upon publication of this notice.

GOLF

The Indiana Medical Golf Association will hold its annual tournament on Tuesday, September 23, 1924, at the New Highland Golf and Country Club. The greens fee is for the whole day. Those wishing to familiarize themselves with the course are invited to play a practice round on Tuesday morning, though the main tournament is in the afternoon. The tournament consists of eighteen holes, medal handicap. Luncheon at about 12:30 p. m. will be served at the Club for those who desire it, and the business meeting will be held at that time. All members of the Medical Golf Association are invited, and any who have not previously joined are quite welcome to take part and be one of the fellows in the pastime.

THE LADIES

Wives of members and all women guests are asked to register at the same time as the members, and this registration will be in direct charge of Mrs. John F. Barnhill, at the registration desk on the eighth floor of the Claypool Hotel. This registration is absolutely necessary in order to make reservations for the various entertainments for the ladies.

The program for the ladies consists of a visit to the Eli Lilly Laboratories between two and four-thirty o'clock on Wednesday. Tea will be served in the Eli Lilly and Company new cafeteria. On Wednesday evening, at eight o'clock, there will be a musicale at the John Herron Art Institute, Sixteenth and Pennsylvania Streets. After the musicale there will be a tour of the art galleries, followed by refreshments.

On Thursday, at nine a. m., there will be a ladies' golf tournament, handicap play, at the New Highland Golf and Country Club. Horseback riding has been provided for those who care for it, the arrangements to be made with Dr. Jane Ketcham. Between twelve and one o'clock there will be a general ladies' reception at the New Highland Golf and Country Club, fol-

lowed by luncheon and a bridge and Mah Jongg party for the remainder of the afternoon.

On Thursday evening the ladies are expected to attend the public meeting to be held at the Cadle Tabernacle.

On Friday between nine and eleven in the forenoon the ladies will be taken on auto tours through the city. Cars will leave convention headquarters promptly at nine o'clock.

Friday afternoon has been left open for shopping and independent sight-seeing or visiting.

OFFICIAL CALL TO THE HOUSE OF DELEGATES

The next annual session of the Indiana State Medical Association will be held at Indianapolis, Wednesday, Thursday and Friday, September 24, 25 and 26, 1924.



Indiana State Soldiers' and Sailors' Monument

The House of Delegates will be constituted as follows: Marion County, 8 delegates; Allen County, 2 delegates; Lake County, 2 delegates; St. Joseph County, 2 delegates; Vanderburg County, 2 delegates; Vigo County, 2 delegates; the other seventy-eight counties each one delegate; thirteen councilors; the ex-presidents,

vote except in case of a tie, when the President shall cast the deciding vote.

Blank credentials have been sent by the Secretary to each county society, and the properly executed credentials for the delegates should be mailed immediately to Dr. Charles N. Combs, Terre Haute, Dr. U. G. Poland, Muncie, or brought to the session. No delegate will be seated unless wearing the official badge.

The House of Delegates will convene promptly at 8 p. m. Tuesday, September 23rd, in the Assembly Hall, Claypool Hotel, and again at 8 a. m. Friday.

The order of business will be as follows:

1. Call to order by the President.
2. Roll call and seating of qualified delegates.
3. Reading of the minutes of previous meeting.
4. Report of the Secretary-Treasurer.
5. Report of standing committees:
 - a. Credentials.
 - b. Administration and Medical Defense.
 - c. Public Policy and Legislation.
 - d. Bureau of Publicity.
 - e. Medical Education.
 - f. Hospital standardization.
 - g. Automobile Insurance.
 - h. Scientific Work.
 - i. Necrology.
 - j. Industrial and Civic Relationship.
 - k. Military Committee.
 - l. Delegates to A. M. A.
 - m. Arrangements.
6. Reading of Communications.
7. Reading of Memorials and Resolutions.
8. Unfinished Business.
9. New Business.
10. Adjournment.



View of Palace Theater on Pennsylvania Avenue

namely, G. F. Beasley, C. S. Bond, M. F. Porter, W. N. Wishard, J. C. Sexton, G. W. McCaskey, A. W. Brayton, J. B. Berteling, G. T. McCoy, T. C. Kennedy, W. F. Howat, J. B. Salb, G. F. Keiper, J. H. Oliver, J. R. Eastman, W. H. Stemm, C. H. McCully, David Ross, W. R. Davidson and C. H. Good; in addition to these, the President and Secretary of the Association, and the Editor of *THE JOURNAL*, all without power to



View of Emmerichville Bridge, West of City

The election of officers will be the first order of business Friday at 8 a. m. In addition to the regular officers, the terms of the following expire January 1, 1925, and their successors must be elected at this session: Delegate to the American

Medical Association to succeed J. Rilus Eastman, Indianapolis; alternate, M. R. Combs, Terre Haute, to be elected for the ensuing two years. Delegates must have been members in good standing of this Association and of the American Medical Association for the past two years. Member of the Committee on Administration and Medical Defense to succeed E. M. Shanklin, Hammond, for the ensuing three years. Member of the Committee on Hospital Standardization to succeed E. J. Lent, South Bend, for the ensuing five years. Delegates from counties comprising the second, fifth, eighth and eleventh districts are reminded that the terms of their councilors will

when registering. Members without their cards may register after their standing has been verified by consulting the records.

Golfers are invited to be in Indianapolis early Tuesday morning in order to enjoy the hospitality of the New Highland Golf and Country Club. The men's tournament will be held there on Tuesday afternoon and the ladies' tournament on Thursday forenoon. The interests of the golfing medical men have been placed in the hands of Dr. B. J. Larkin, in the Hume-Mansur Building, and all those desiring to enter the tournaments are urged to communicate with him for details of the arrangements.

The following senior students at the Medical Department of Indiana University in direct charge of Evanson



View of Indiana State Capitol Building

expire December 31, 1924, and new councilors should be elected to succeed the following:

Second District, Joseph Smadel, Vincennes.

Fifth District, J. H. Weinstein, Terre Haute.

Eighth District, E. M. Conrad, Anderson.

Eleventh District, C. S. Black, Warren.

Some of these elections already have been held, but they should be reported to the House of Delegates at this session for confirmation.

CHARLES N. COMBS, Secretary.

ANNOUNCEMENTS

All members, their wives and guests are urged to attend the public meeting at the Cadle Tabernacle. The addresses will be given by Drs. W. A. Pusey, Chicago; William J. Mayo, Rochester, and Hugh T. Patrick, Chicago.

The members and those accompanying them are requested to register upon their arrival. The Bureau of Information and Registration is on the eighth floor of the Claypool Hotel. Present your membership cards

B. Sharp, will assist at the convention headquarters during the entire session of the Association: George E. Chittenden, Paul A. Draper, Seth W. Ellis, James C. Drybread, Walter A. Foreman, Claude E. Hadden, Frank T. Hallam, Carroll O'Rourke, Robert H. Pierson, Benjamin R. Ross, Robert B. Smallwood, and Raymond W. Spenner.

The ladies are invited especially to attend the Indianapolis session. Arrangements for their entertainment are in charge of Mrs. J. F. Barnhill, Indianapolis. The program includes a visit and luncheon at the Lilly laboratories on Wednesday afternoon; a musicale and refreshments at the John Herron Art Institute on Wednesday evening; golf tournament, luncheon, and bridge and Mah Jongg party at the New Highland Golf and Country Club on Thursday, and auto tours throughout the city on Friday morning.

This year a stag theater party will take the place of the customary smoker. "Red Pepper Revue" or "Burlesque DeLuxe with Mayor 'Lew' Shank as Impresario and Censor" is a catchy announcement. Admittance to the theater will be by ticket only and tickets are given out in the order of registration.

Members of the House of Delegates are reminded that the first meeting will be on Tuesday evening at 8 o'clock. Members of the Council are to meet Tuesday afternoon at 5 o'clock.

Following the precedent at Terre Haute last year those who register at the Indianapolis session will be given automobile stickers granting special parking privileges.

The Eye, Ear, Nose and Throat Section will give a dinner in honor of the visiting guests of the section at the Athletic Club on Thursday evening at six o'clock sharp. Dinner tickets will be four dollars each and reservations should be made with Dr. D. O. Kearby, American Central Life Building, Indianapolis, not later than Tuesday, September 23rd. Checks in advance are requested in order to save Dr. Kearby a lot of petty detail work as well as to indicate the number for whom dinner arrangements must be made. The guests of the section are Drs. Edward Jackson, Denver; Ross Hall Skillern, Philadelphia; W. L. Benedict, Rochester; Chevalier Jackson, Philadelphia; Joseph C. Beck, Chicago, and L. Webster Fox, Philadelphia.



Front View of Indiana Institute for the Blind

Arrangements for class dinners or luncheons should be made promptly through the chairman of the Committee on Arrangements. Due care should be observed not to have any social functions interfere with the scientific meetings.

Essayists are reminded that all papers presented before the Association become the property of the Association, and, therefore, are not to be published or submitted for publication elsewhere than in *THE JOURNAL* of the Indiana State Medical Association.

The election of officers will be the first order of business at the meeting of the House of Delegates to be held Friday morning, September 26th. No member of the House of Delegates is eligible to office, and delegates to the American Medical Association must have been members in good standing of the A. M. A. for the past two years.

You are requested to wear the official badge, which is supplied when you register, when attending or participating in the meetings. Members of the House of Delegates will have designating badges. Only those who are accredited delegates are entitled to vote at the meetings

of the House of Delegates or even to address the House of Delegates without special permission.

Register early. The booth for registration will be open throughout the session. Please have your pocket cards with you in order to avoid delay in registration. If you have paid your dues to your county society secretary *only recently*, and have not yet received your membership card, present a receipt from the county secretary and you will be permitted to register. Please get your badge and wear it.

Essayists should bear in mind that their papers as presented at the Indianapolis session represent copy for *THE JOURNAL* and, accordingly, the title and full name and address of the essayists should appear at the top of the manuscript, and the body of the manuscript should be edited carefully. Attention to the paragraphing, punctuation, capitalization, and grammatical construction of sentences will go a long way toward helping the editor and printers. All manuscripts should be typewritten.

The local committee in charge of the entertainment for the ladies is as follows: Mrs. J. F. Barnhill (chairman); Mrs. W. S. Tomlin, Mrs. John Eberwein, Mrs. Robert Repass, Dr. Amelia Keller, Mrs. A. L. Walters, Mrs. A. L. Marshall, Dr. Ada Schweitzer, Mrs. John Carmack, Mrs. Charles Sowder, Dr. Mary Spink, Mrs. Homer Hamer, Dr. Jane Ketcham, Mrs. William A. Doeppers, Mrs. Thomas Beasley, Mrs. S. E. Earp, Mrs. David Ross, Mrs. H. H. Wheeler, and Mrs. Alfred Henry.

CONDENSED PROGRAM

Tuesday, September 23

AFTERNOON

Meeting of the Council, 5:00 p. m., continuing through dinner, Hotel Severin.

EVENING

Meeting of the House of Delegates, Assembly Room, Claypool Hotel, at 8:00 o'clock.

Wednesday, September 24

FORENOON

Dry clinics, 9:00 to 12:00 a. m. Joint meeting of all sections, Assembly Room, Claypool Hotel.

AFTERNOON

Addresses, 2:00 to 5:00 p. m. Joint meeting of all sections, Assembly Room, Claypool Hotel.

EVENING

Stag theater party, Capitol Theater, 8:00 p. m.; admission by special tickets issued at time of registration.

Musical and reception for the ladies, John Herron Art Institute, 8:00 p. m.

Thursday, September 25

FORENOON

Dry clinics. 9:00 to 12:00 a. m. Joint meeting of all sections, Assembly Room, Claypool Hotel.

AFTERNOON

Addresses, 2:00 to 5:00 p. m. Joint meeting of all sections, Assembly Room, Claypool Hotel.

EVENING

Dinner of Ophthalmological and Otolaryngological Section, 6:00 p. m., Athletic Club.

Public meeting. 8:00 p. m., Cadle Tabernacle; addresses by Drs. A. W. Pusey, Chicago, president of the American Medical Association; William J. Mayo, Rochester, and Hugh T. Patrick, Chicago.

COMMERCIAL EXHIBITS

Eighth floor, Claypool Hotel, Wednesday, Thursday and Friday.

REGISTRATION

Eighth floor, Claypool Hotel, Tuesday, 3:00 p. m. until Friday 3:00 p. m.

OFFICIAL PROGRAM

HOUSE OF DELEGATES

First meeting, Assembly Room, Claypool Hotel, Tuesday evening, September 23rd, at 8:00 o'clock.

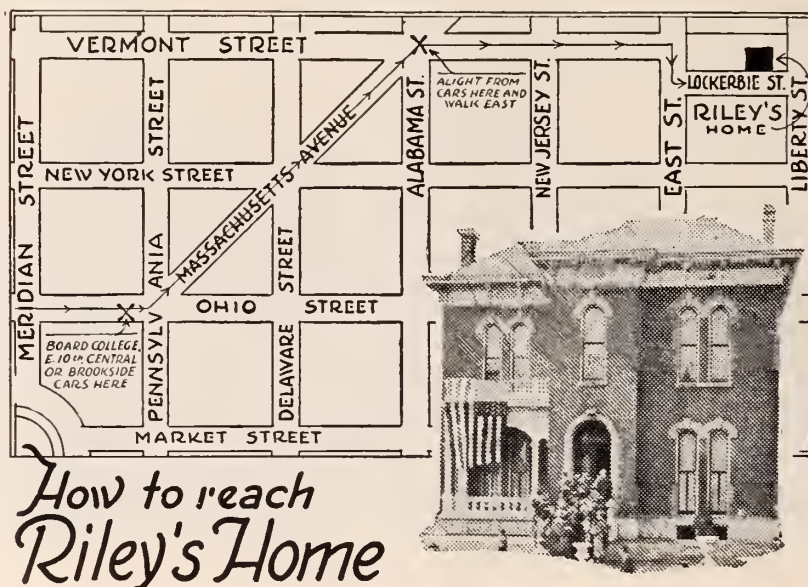
Second meeting, Assembly Room, Claypool Hotel, Friday morning, September 26th, at 8:00 o'clock.

COUNCIL

First meeting and dinner at Severin Hotel, Tuesday, September 23rd, at 5:00 p. m.

Second meeting, Assembly Hall, Claypool Hotel, immediately following the meeting of the House of Delegates, Friday morning, September 26th.

Additional meetings at the call of the President of the Council.



View of James Whitcomb Riley's Home on Lockerbie Street

Friday, September 26

FORENOON

Second meeting House of Delegates, Assembly Room, Claypool Hotel, at 8:00 o'clock.

Second meeting Council, Assembly Room, Claypool Hotel, immediately following meeting of House of Delegates.

Dry clinic, Section on Surgery, conducted by Dr. Carl A. Hedblom, Rochester, 9:00 to 12:00 a. m., at Indianapolis City Hospital.

Dry clinic, Section on Medicine, conducted by Dr. Alfred Stengel, Philadelphia, and Dr. James B. Herrick, Chicago, 9:00 to 12:00 a. m., at the Indianapolis City Hospital.

Dry clinic, Section of Ophthalmology and Otolaryngology, conducted by L. Webster Fox, Philadelphia, and Ross Hall Skillern, Philadelphia, 9:00 to 12:00 a. m., at Indianapolis City Hospital.

AFTERNOON

Addresses, 2:00 to 5:00 p. m. Joint meeting of all sections, Assembly Room, Claypool Hotel.

GENERAL MEETINGS AND CLINICS

(ASSEMBLY ROOM, CLAYPOOL HOTEL)

Wednesday, September 24th, 9:00 to 12:00 a. m. and 2:00 to 5:00 p. m.

Thursday, September 25th, 9:00 to 12:00 a. m. and 2:00 to 5:00 p. m.

Friday, September 26th, 2:00 to 5:00 p. m.

PUBLIC MEETING

(CADLE TABERNACLE)

Thursday, September 25th, 8:00 p. m.

SECTION ON SURGERY

Friday, September 26th, 9:00 to 12:00 a. m. at Indianapolis City Hospital.

Join with other sections for all other meetings and clinics.

SECTION ON MEDICINE

Friday, September 26th, 9:00 to 12:00 a. m., at Indianapolis City Hospital.

Join with other sections for all other meetings and clinics.

SECTION ON OPHTHALMOLOGY AND OTOLARYNGOLOGY

Friday, September 26th, 9:00 to 12:00 a. m. at Indianapolis City Hospital.

Join with other sections for all other meetings and clinics.

COMMERCIAL EXHIBITS

(EIGHTH FLOOR, CLAYPOOL HOTEL)

Wednesday, Thursday and Friday.

REGISTRATION

(EIGHTH FLOOR, CLAYPOOL HOTEL)

Tuesday, 3:00 p. m. until Friday, 3:00 p. m.

ENTERTAINMENT

Tuesday afternoon, September 23rd, golf tournament for the men, New Highland Golf and Country Club.

Wednesday evening, September 24th, stag theater party, Capitol Theater, at 8:00 o'clock.

Wednesday afternoon, September 24th, visit and luncheon for the ladies at the Eli Lilly laboratories.

Wednesday evening, September 24th, musicale and reception for the ladies at John Herron Art Institute, at 8:00 o'clock.

Thursday morning, September 25th, golf tournament for the ladies at the New Highland Golf and Country Club at 9:00 o'clock. Luncheon for the ladies at the New Highland Golf and Country Club followed by bridge and Mah Jongg in the afternoon.

Thursday evening, September 25th, dinner of the Section on Ophthalmology and Otolaryngology, Athletic Club, at 6:00 o'clock.

Friday morning, September 26th, auto tours throughout the city for the ladies, starting from convention headquarters promptly at 9:00 o'clock.

SCIENTIFIC PROGRAM

GENERAL MEETINGS

(ASSEMBLY ROOM, CLAYPOOL HOTEL)

Wednesday, 8:30 to 12:00 A. M.

Organization.

Address of Welcome.

President's Address—S. E. Earp, Indianapolis.

DRY CLINICS—

9:00 to 10:00 A. M., Section on Medicine:

Charles F. Hoover, Cleveland, Professor of Medicine, Western Reserve University School of Medicine—"Chronic Emphysema with Cyanosis; Incipient Tuberculosis of Lungs; Periodic Asthma."

10:00 to 11:00 A. M., Section on Surgery:

Kellogg Speed, Chicago, Assistant Professor of Surgery, Rush Medical College, Chicago.

11:00 to 12:00 A. M., Section on Ophthalmology and Otolaryngology:

Joseph C. Beck, Chicago, Associate Professor of Otolaryngology, Rhinology and Laryngology, University of Illinois College of Medicine, Chicago—"Plastic Surgery About the Face, Head and Neck." Illustrated with lantern slides.

Wednesday, 2:00 to 5:00 P. M.

ADDRESSES—

2:00 to 3:00 P. M., Section on Surgery:

Bransford Lewis, St. Louis, Professor of Genitourinary Diseases, St. Louis, University School of Medicine. Subject: "Urologic Diagnosis for the General Practitioner."

Discussants: W. N. Wishard, Indianapolis, and F. S. Crockett, Lafayette.

3:00 to 4:00 P. M., Section on Ophthalmology and Otolaryngology:

William L. Benedict, Mayo Clinic, Rochester. Subject: "Treatment of Diseases of the Uvea and Retina; A Review of 100 Cases Treated at the Mayo Clinic."

Discussant: Frank A. Morrison, Indianapolis.

4:00 to 5:00 P. M., Section on Medicine:

Frank Smithies, Chicago, Associate Professor of Medicine, University of Illinois, College of Medicine, Chicago. Subject: "The Significance of Gall Bladder and Biliary Tract Disease; Observations upon Physiology, Diagnosis and Treatment."

Discussant: Louis G. Heyn, Cincinnati, Associate Professor of Clinical Medicine, University of Cincinnati College of Medicine.

Thursday, 9:00 to 12:00 A. M.

DRY CLINICS—

9:00 to 10:00 A. M., Section on Surgery:

Andre Crotti, Columbus, Ohio.

10:00 to 11:00 A. M., Section on Medicine:

John E. Greiwe, Cincinnati—"Functional Changes in the Heart." Illustrated with lantern slides.

11:00 to 12:00 A. M., Section on Ophthalmology and Otolaryngology:

The Bronchoscopic Clinic of Philadelphia, comprising Chevalier Jackson, Gabriel Tucker, Louis H. Clerf, W. F. Moore and Robert M. Lukens—"Bronchoscopy in the Diagnosis and Treatment of Lung Suppuration." Lantern and moving picture demonstration.

Thursday, 2:00 to 5:00 P. M.

ADDRESSES—

2:00 to 3:00 P. M., Section on Medicine:

Walter M. Boothby, Mayo Clinic, Rochester. Subject: "The Importance of Correct Diagnosis in the Treatment of Thyroid Diseases."

Discussant: J. H. J. Upham, Columbus, Ohio, Professor of Medicine, Ohio State University College of Medicine, Columbus.

3:00 to 4:00 P. M., Section on Ophthalmology and Otolaryngology:

Edward Jackson, Denver, Emeritus Professor of Ophthalmology, University of Colorado School of Medicine, Boulder-Denver. Subject: "A Present Understanding of Tuberculosis."

Discussant: Alfred Henry, Indianapolis.

4:00 to 5:00 P. M., Section on Surgery:

Major Gabriel Seelig, St. Louis, Professor of Surgery, Washington University Medical School, St. Louis. Subject: "Diabetes and Surgery."

Discussant: Allen B. Kanel, Chicago, Professor of Surgery Northwestern University Medical School, Chicago.

Thursday, 8:00 P. M.

PUBLIC MEETING AT CADLE TABERNACLE—

Presiding, Joseph Rilus Eastman, Indianapolis.

Address—Samuel E. Earp, Indianapolis, President Indiana State Medical Association.

Address—W. A. Pusey, Chicago, President of the American Medical Association. Subject: "Syphilis as a Sanitary Problem."

Address—Hugh T. Patrick, Chicago, Emeritus Professor Neurology, Northwestern University Medical School, Chicago. Subject: "Nervous Disorders and the Public Welfare."

Address—William J. Mayo, Mayo Clinic, Rochester. Subject: "The Influence of Ignorance and Neglect on the Incidence and Mortality of Cancer."

Friday, 2:00 to 5:00 P. M.

ADDRESSES—

2:00 to 3:00 P. M., Section on Ophthalmology and Otolaryngology:

Ross Hall Skillern, Philadelphia, Professor of Laryngology, Jefferson Medical College of Philadelphia. Subject: "The Accessory Sinuses as Foci of Infection for Affections in Remote Parts of the Body."

Discussant: John F. Barnhill, Indianapolis.

3:00 to 4:00 P. M., Section on Surgery:

Evarts A. Graham, St. Louis, Professor of Surgery,

Washington University Medical School, St. Louis.
Subject: "Considerations in the Diagnosis of Lesions of the Biliary Tract."

Discussants: W. D. Haines, Cincinnati, Associate Clinical Professor of Surgery, University of Cincinnati College of Medicine, and Miles F. Porter, Fort Wayne.

4:00 to 5:00 P. M., Section on Medicine:

F. M. Pottenger, Los Angeles, California. Subject: "The More Important Diagnostic Measures in Tuberculosis."

Discussants: James B. Herrick, Chicago, and Charles P. Emerson, Indianapolis.

SECTION MEETINGS

The Sections will meet independently on Friday forenoon only, each at the Indianapolis City Hospital, from 9:00 to 12:00 A. M.

SECTION ON OPHTHALMOLOGY AND OTOLARYNGOLOGY

(INDIANAPOLIS CITY HOSPITAL)

Friday, 9:00 to 12:00 A. M.

CLINICS—

L. Webster Fox, of Philadelphia, Professor of Ophthalmology, Jefferson Medical College of Philadelphia.

Ross Hall Skillern, of Philadelphia, Professor of Laryngology, Jefferson Medical College of Philadelphia.

SECTION ON MEDICINE

(INDIANAPOLIS CITY HOSPITAL)

Friday, 9:00 to 12:00 A. M.

CLINICS—

Alfred Stengel, of Philadelphia, Professor of Medicine University of Pennsylvania School of Medicine, Philadelphia.

James B. Herrick, Chicago, Professor of Medicine, Rush Medical College, Chicago.

SECTION ON SURGERY

(INDIANAPOLIS CITY HOSPITAL)

Friday, 9:00 to 12:00 A. M.

CLINIC—

Carl A. Hedblom, Mayo Clinic, Rochester.

REPORT OF THE SECRETARY-TREASURER

House of Delegates, Indiana State Medical Association:

Gentlemen:—At the time of making this report for the year 1924, to date we have a paid up membership of 2,479 members. This is approximately a loss of 120 members as compared to the corresponding time for last year. Our membership list has shown a continuous growth since the end of the war, and there is no other possible explanation for the decrease this year except the fact that the dues were raised from \$4.00 to \$7.00. The decrease seems to be about equally distributed among the small counties and the large counties.

The treasury shows a balance at this time of over \$15,000 as compared to \$9,000 at this time last year, an increase of \$6,000. Part of this is due to the fact that the Bureau of Publicity has not spent all of the money allotted to it. The increase in the dues netted us about \$7,000 additional in our income. We have expended for the Bureau of Publicity about \$3,500, so that the balance of \$3,500 remains to swell the condition of the treasury until a part of it is used up in maintaining this Bureau for the balance of the year.

Treasurer's Report

Receipts:

Balance on hand January 1, 1924	\$ 9,156.16
Membership dues (2,479 members)	17,353.00
Exhibitor Fees, 1923 (\$125.00) and 1924 (\$520.00)	645.00
Total	\$27,154.16

Expenditures:

THE JOURNAL, \$2 per member (2,479 members)	\$ 4,958.00
Medical Defense Fund (2,749 members)	1,859.75
Secretary's stenographer	511.50
Postage and incidentals	44.42
Printing	161.56
Councilors' expenses	108.00
President's expense	52.53
Bureau of Publicity	3,878.20

Total	11,573.96
-------	-----------

Balance on hand September 1, 1924	\$15,580.20
-----------------------------------	-------------

Respectfully submitted,

CHARLES N. COMBS, Secretary-Treasurer.

REPORT OF THE COMMITTEE ON ADMINISTRATION AND MEDICAL DEFENCE, INCLUDING REPORT OF THE TREASURER

House of Delegates, Indiana State Medical Association:

Gentlemen:—During the year 1924 there have been four cases in which a member has applied to the Committee for defense. A year ago, at the time of the last report, there were eleven cases pending, and we report the following progress:

No. 97	Still pending.
No. 106	Trial and compromised. Cost \$340.00.
No. 107	Pending.
No. 109	Pending.
No. 115	Pending.
No. 117	Trial. Jury disagreed.
No. 118	Trial. Verdict for defendant.
No. 119	Pending.
No. 120	Pending.
No. 121	Pending.
No. 122	Pending.

NEW CASES FOR THIS YEAR

No. 123	Pending
No. 124	Pending.
No. 125	Pending.
No. 126	Pending.

This leaves on our hands September 1, 1924, twelve cases, namely, Nos. 97 107, 109, 115, 119, 120, 121, 122, 123, 124, 125, and 126.

FINANCIAL REPORT

Medical Defense Fund

Receipts:

Balance on hand January 1, 1924	\$ 2,257.55
Medical Defense Apportionment (2,479 members at 75c each)	1,859.75

Total	\$ 4,117.30
-------	-------------

Disbursements:

Case No. 106	\$ 340.00
Balance on hand Sept. 1, 1924	\$ 3,777.30
Liberty Bonds	5,000.00

Total in Treasurer's Custody September 1, 1924	\$ 8,777.30
--	-------------

Respectfully submitted,

CHARLES N. COMBS, Treasurer.

E. M. SHANKLIN,

GEORGE R. DANIELS,

DAVID ROSS.

REPORT OF COMMITTEE ON PUBLIC POLICY AND LEGISLATION

House of Delegates, Indiana State Medical Association:

Gentlemen:—Your Committee on Public Policy and Legislation submits the following report of its activities for the present year:

Immediately following the appointment of the Committee, a campaign was inaugurated to have a legislative committee appointed in each of the component medical

societies which go to make up the Indiana State Medical Association. The response to this campaign has been very gratifying.

Immediately following the appointment of these county legislative committees a campaign was put on to reach the candidates for the General Assembly who were then before the Primaries which were held during the month of May. This campaign was made around the five points, which were adopted by the Public Policy and Legislation Committee for its guidance at a meeting held at the Indianapolis Athletic Club during the month of March. A campaign was put on by the State Committee to reach the candidates for governor who were before the May Primaries. We feel that these campaigns have met with very considerable success.

Following the publication of Part II of the *Bulletin of the American Medical Association* for June, containing the article, "Regulation of Physicians by Law," by Howard Eugene Kelly, which article so clearly sets forth the position of your committee, the committee has made an effort through the legislative committees of the component societies to have a copy of this article placed in the hands of every candidate for the legislature, with the request from the committee that the candidate acquaint himself with its contents.

A conference was held in Chicago during the session of the American Medical Association, attended by representatives of the state medical association for the purpose of canvassing the general situation as it pertains to medical legislation and arriving at some definite plan of action. It is needless to say that this conference revealed a very chaotic situation as regards the regulation of those who would treat the sick. As a result of this conference another conference was called (the date of which has not been announced) for the purpose of drafting a basic law for the regulation of those who would treat the sick, to be submitted to the different state associations for suggestions and criticisms. The result of this conference will be reported at the meeting of the state association in September.

A conference has been held with the Secretary of the Indiana State Board of Medical Registration with the view of getting the experience of the board and the aid of its legal department in drafting an amendment to the Medical Practice Act, with the view of making the enforcement of the present Act practicable.

There will be a meeting of this committee held during the meeting of the Association in September, at which plans will be outlined for a campaign between that time and the fall election, and a post-election campaign before the meeting of the General Assembly.

Respectfully submitted,

F. W. CREGOR, Chairman.
H. O. BRUGGEMAN,
E. E. EVANS,
O. T. BRAZELTON,
C. N. HOWARD,
GEORGE R. DANIELS.
C. H. MCCASKEY,
J. W. SLUSS,
A. L. MARSHALL,
C. H. MCCULLY.

REPORT OF COMMITTEE ON AUTOMOBILE INSURANCE

House of Delegates, Indiana State Medical Association:

Gentlemen:—Your Committee on Automobile Insurance begs to report as follows:

The Lumbermen's Mutual Casualty Co., whose plan of operation you approved at the 1923 meeting, has a number of policies for members in force, and are constantly adding to the number. So far as this committee knows the relations of that company and its policyholders among our members have been satisfactory. The company has made a consistent effort to extend its business among our members and has had a fair degree of success and has written

more and more as the time permitted. Many of our members have continued existing insurance until the same expired before contracting with the Lumbermen's Mutual Casualty Co. Their insurance, therefore, began late in the year. Others have refused to contract because the premium of the Lumbermen's Mutual Casualty Co. is higher than competing reciprocal concerns, for it will be remembered that the Lumbermen's Mutual Casualty Co. is a *mutual* concern. It writes its business at standard rates, and its policyholders receive dividends at the termination of the year.

Many physicians prefer to accept the liability they incur in relation with reciprocal insurance concerns for the sake of receiving insurance at the nominal rates of charges. Your committee cannot recommend relations with reciprocal organizations. On the contrary, we warn our Association members of the liability they are incurring in accepting this kind of insurance.

The Lumbermen's Mutual Casualty Company agreed last year to consider the granting of a preferential rate to our members, as soon as a sufficient number of us had contracted with them to serve as an actuarial basis. The neglect of many of us to accept its policies, and the preference of others for the cheap *reciprocal* insurance, has prevented the attainment of that object. Besides, that result could hardly be attained in the time elapsed. Your committee, being assured as before of the integrity and stability of the Lumbermen's Mutual Casualty Co., recommends that our relations with it be continued.

We urgently recommend to our individual members that they give this matter their consideration, and by their assistance promote this movement which cannot be other than an additional help toward cohesion in medical organization.

Respectfully submitted.

JAMES N. MCCOY, Chairman.

REPORT OF COMMITTEE ON NECROLOGY

House of Delegates, Indiana State Medical Association:

Gentlemen:—A careful record from July 27, 1923, to August 19, 1924, shows that there were ninety-two deaths in the ranks of the medical profession in Indiana during the period as compared with ninety-three deaths for the preceding year.

May of 1924 led the list with fourteen deaths; January, 1924, was second with twelve; August, 1923, third, with ten; September, 1923, had nine; February and April of 1924, each had eight; June and July, 1924, each six; October, November and December of 1923, each had five, and March, 1924, had the least with only four.

The youngest death was that of Dr. L. P. Collins, of Logansport, who died October 16, 1923, at the age of thirty-six years. The oldest was that of Dr. Daniel H. Prunk, of Indianapolis, who died August 2, 1923, in his ninety-fifth year.

Only one lady physician was numbered among the deceased, that one being Dr. Sarah Stockton, of Indianapolis, who died March 13, 1924, at the advanced age of eighty-two years.

It is interesting to note the cause of death among physicians. Among the ninety-two that answered the final summons heart disease heads the list with thirty-five victims; kidney diseases came second, with twenty-one; apoplexy was third, with nineteen; pneumonia was fourth, with fourteen; pernicious anemia claimed one, accident one, and suicide one.

Among the total, twenty-one graduated from the Medical College of Indiana; one from Bellevue; six from Rush; seven from Kentucky School of Medicine; one from University of Buffalo; the lady from the Woman's Medical College of Pennsylvania; four from the Fort Wayne College of Medicine; one from the University of Pennsylvania; one from Northwestern; seven from Louisville; three from University of Michigan; two from College of Physicians and Surgeons of Indianapolis; nine

from Medical College of Ohio; three from Eclectic Medical College of Cincinnati; two from Eclectic Medical College of Indianapolis; one from Lincoln Memorial Medical College; one from Columbia University School of Medicine; two from Miami; two from Physio-Medical College of Indianapolis; two from Cleveland College of Physicians and Surgeons; one from Ensworth Medical College; one from Georgetown University, and one from the Hospital Medical College of Evansville.

Of the total number eighty-five were allopaths; five were eclectics and two were physio-meds.

The combined ages of these ninety-two physicians was 5,983 years; the average age was sixty-five years and three months. Taking these figures as a guide one arrives at the conclusion that medical men live considerably longer than the years given as the average of human life.

Respectfully submitted,

GEORGE G. RICHARDSON, Chairman.

REPORT OF COMMITTEE ON CIVIC AND INDUSTRIAL RELATIONS

House of Delegates, Indiana State Medical Association:

Gentlemen:—Your committee has put forth every reasonable effort to gain information that could be used for the benefit of the members of the Indiana State Medical Association and the profession as a whole. The committee met at different times during the year, the last meeting being held at the Morrison Hotel in Chicago during the session of the American Medical Association.

We regret to report that we have received little assistance from the profession over the state. Sixty-three questionnaires were sent to prominent members of the Association but only two responses were received, and even those did not answer the questionnaire. Some members of the Association seem to think that this committee should be discharged and the work referred to the Committee on Public Policy and Legislation, but we do not agree with this suggestion, as the two committees function along different lines and each has an abundance of work to perform.

It is the opinion of this committee that the Association should consider carefully and take some action that will tend to modify or correct some civic and industrial conditions in which the profession is interested and which are enumerated as follows:

1. The taxation of the members of the medical profession in securing licenses under the narcotic law and the charge for the blanks for the procuring of narcotics is unjust and the law should be changed or modified.

2. The refusal of the United States Revenue Department to allow medical men deductions in their income tax returns for expenses in postgraduate work and in attending medical societies is unfair as well as unjust. Business men are allowed reductions of analogous character and there is no sane reason why physicians should not be accorded like consideration. Every member of the medical profession ought to write his senators and representatives in Washington asking that this injustice be corrected.

3. The Indiana Workmen's Compensation Act should be revised so that the law will provide that an injured employee shall have the privilege of selecting his or her own physician or surgeon. The Act also should provide that the physician employed shall be paid for his services up to and including the complete recovery of the patient.

4. There should be a revision of the fee bill for compensation cases to meet present conditions. The present fee bill is one that was adopted when wages were low and the price of everything else in proportion. The physician who is ever ready to administer to the afflicted should not be penalized for the benefit of the employer of labor or insurance corporations, and particularly when the cost of compensation including medical and surgical

services is passed on to the ultimate consumer anyway. Provision also should be made for special compensation for the recognized trained expert who should not be asked to serve the patient for the fees provided for routine work. His skill, training and experience should be recognized.

5. The tendency on the part of insurance companies to encourage industrial clinics and to insist upon having industrial cases sent to those clinics, is an injustice to many capable men and particularly young men in the medical profession who are in every way deserving of their share of industrial work. It has a tendency to create a class distinction which the medical profession desires to avoid, as it also tends to place the profession in a dependent class.

6. The expert medical and surgical testimony in our courts is looked upon unfavorably by press and public for the reason that it is charged and too often is true that the testimony is made to fit the case and for a price. A way out of the difficulty would be to have medical experts of recognized standing appointed or selected by the court, with compensation awarded by the court. While this method might occasionally result in a conflict of opinion there would be far less conflict than there is under the present system, and at best the public as well as those engaged in legal controversies would feel that testimony to suit the case had not been purchased.

7. At the present time the members of the medical profession are imposed upon shamefully by benevolent and charitable organizations and individuals through the solicitations of and acceptances of gratuitous services in cases where fees even though less than the usual ones could be paid. Medical men are charitable to a fault, and ever willing to render gratuitous services to the deserving poor, but when they render gratuitous services to those able to pay even part fees they not only are being imposed upon but are aiding in the spread of pauperism and in increasing the ranks of the dependent class.

8. At present the medical profession is confronted with a practice that while existing for many years is a growing evil and certain to bring about results that are inimicable to the profession. This is the practice under contract, such as lodge work, the work for insurance companies and the contract work for large industrial organizations. Recently it has been charged that certain physicians make examinations for so-called health organizations and those same organizations sell the services to the consumer at a profit. It is charged that in some hospitals and allied institutions under lay control medical men sell their services to the organization and the organization in turn sells those same services to the patient at a profit. This is a serious condition of affairs and if permitted to continue can result in only one thing and that is the loss of independency on the part of individual members of the medical profession and the lowering of the practice of medicine to the level of a trade with perhaps less financial returns than goes to the ordinary laborer.

9. There are many other conditions menacing the life of the profession and working toward the destruction of individualism in the practice of medicine that should receive our earnest consideration. Too long have we as a profession permitted our law making, various civic, benevolent, and industrial organizations to make laws and regulations for us without a word of protest or comment from us. We believe that it is time for the medical men, individually and collectively, to take an active interest in solving the questions that are of vital interest to us from an economic as well as professional standpoint, as well as of interest to the public which we serve.

Respectfully submitted,

GEORGE D. MILLER, Chairman,
A. M. HAYDEN,
F. S. CROCKETT,
H. W. MACDONALD,
C. R. SOWDER.

REPORT OF A. M. A. DELEGATES

House of Delegates, Indiana State Medical Association:

Gentlemen:—Your representatives to the House of Delegates of the American Medical Association, Chicago Session, June 9 to 13, 1924, beg leave to submit the following brief report:

The attendance was the largest in the history of the Association, the registration numbering nearly 8,000, though this is less than ten per cent of the total membership of 90,000 members. Indiana contributed 475 to that attendance.

The Municipal Pier housed all the activities of the Association except the meetings of the House of Delegates. The latter were in the auditorium of the new building of the Association, at 535 North Dearborn Street.

We urge all members of the Association to visit the A. M. A. headquarters building when in Chicago. Any physician is welcome at any time, and particular effort will be put forth to show him this wonderful plant the like of which exists nowhere else in the world, a monument to the genius of the retiring manager and editor, Dr. George H. Simmons, much beloved by his friends and admirers and as much hated by the enemies of medical progress and endeavor. This building with all its equipment cost \$667,753.338. The Association has assets of a net worth of \$1,361,747.27, all of which belongs to that portion of the medical profession which is in fellowship affiliation with the American Medical Association. Are you a partner in this great enterprise of advancing the economic and scientific interests of the practice of medicine and surgery?

Two classes of members compose the Association, i. e., first: members of the several component state medical associations, some 49,000, who contribute absolutely nothing to the support of the parent Association. Then there are the Fellows of the Association. They pay an annual fee of \$5.00 in dues, and receive in return the *Journal of the American Medical Association*, (worth at the very least calculation \$15.00 per year), besides all the privileges of the Association. The Fellows number 51,231 physicians and surgeons. Thus there is a total membership of 90,056. The British Medical Association has 27,533 members. It may be said in passing that some thirty thousand receive *The Journal* by subscription who never have qualified for fellowship. These should avail themselves of Fellowship, for no additional cost is involved. For instance, in Indiana 2,041 receive *The Journal*, while but 1,338 are Fellows of the Association. Immediately these 658 should obtain Fellowship in the Association. Any physician progressive enough to read *The Journal* ought to make himself worthy of fellowship in the Association. Only one-half of the members of the Indiana State Medical Association are Fellows of the Association. We have in this state all told 4,353 physicians, of which 2,735 are members of the Indiana State Medical Association. Less than one-half of our physicians receive *The Journal*. The profession of the state should wake up to the wonderful opportunities for progress lying right at our very doors. A comparison of this situation with the situation in other states is invidious to Indiana's profession. We know of no better investment for Indiana's profession than Fellowship in the American Medical Association, the greatest medical association the world has ever seen, and which will continue to grow until every one of the 150,000 physicians of the country who can be made reputable is enlisted under the banner of the Association working together to conquer disease and infirmity and aiding in prolonging the average span of human life.

The report of the Board of Trustees is as usual very illuminating to those interested in the material prosperity of the Association. The Association is not only sound but very prosperous. For 1923 the gross earnings of the *Journal of the Association* were \$1,144,579.19. After paying all the expenses of publication the gross earnings

are found to be \$301,683.33, a remarkable achievement. On an average each advertising page of *The Journal* brings \$250 per issue. The gross income of the Association from all sources was \$338,637.01. What a remarkable work the editor and general manager has accomplished! Dr. George H. Simmons retires this year because the advancing years of seventy-four warn him that he must conserve what is left of life. And yet, age is no bar to achievement. "Cato learned Greek at eighty, Sophocles wrote his grand Oedipus, and Simonides bore off the prize of verse from his compeers when each had numbered more than four score years. And Theophrastus at four score and ten had but begun his 'Characters of Men.' Chaucer at Woodstock with the nightingales at sixty, wrote the Canterbury Tales. Goethe at Weimar, toiling to the last, completed Faust when eighty years were past."

At the Congress Hotel on the evening of June 9th a magnificent testimonial banquet was tendered Dr. Simmons, at which was unveiled a life-sized oil portrait of the doctor. This portrait now graces the walls of the new building of the Association.

The Board of Trustees has served the Association well and is deserving of high praise for its faithful endeavor.

We desire especially to direct the attention of the profession to the grants of money which are being made to individuals to foster scientific research and investigation. To date sixty-seven such have been made, one of which is \$1,800.

The interests of the individual doctor are paramount with the Association. The Association strives to serve the very last doctor in the country whether he be a member of the Association or not. For example: Persistent efforts are being made to reduce the unjust Harrison Narcotic Tax from \$3 to \$1, its prewar status. An interpretation of the income tax law allows physicians in attendance upon medical society meetings no deductions as was formerly the case in making up their income tax returns. This matter is in the hands of the proper authorities of the Association for adjudication.

Physicians doing Indian work are very poorly paid. Efforts are being made to increase their salaries. The Patent Office is being importuned to revise its code so that promiscuous patents be refused, and that patents upon medicines or anything needed for the cure or alleviation of suffering be prohibited.

Standardization of clinical thermometers is being sought.

So many distressing accidents to little children, because of lye preparations being swallowed, are resulting in dysphagia and aphagia. The board is asking for legislation to label all such preparations with the word "poison" in large red letters.

Periodic examination of the apparently well is urged, because it is easier to keep well than to get well, but our physicians must make conscientious and painstaking examinations of each applicant and not lightly pass these people by. They are willing to pay a good fee and should receive full value for the expense incurred.

The report of the Judicial Council indicates the prevalence still of the dishonest practice of fee splitting. Would that all physicians realized the dishonesty of such practice.

The supplemental report of the council dealt with lay organizations capitalizing the idea of the periodic health examination. The doctor receives a fee, it is reported, of \$2 to \$5 from the lay organization which collects, we are told, \$10 to \$25 from the individual examined. We wish that we might amplify on this matter. But suffice it to say that for any physician to thus sell his service to any such organization belittles him in the eyes of all concerned, but moreover to do such is a gross violation of our principles of ethics.

The report of the Council on Medical Education indicates marked progress in improvement of the medical and hospital situation throughout the country. The number of medical students and graduates in medicine

is increasing. The new doctor of today starts on his career better prepared than ever to cope with the problems that lie before him. The medical profession is rapidly becoming the best educated of all professions. May we never fail to act the part.

We now have one physician to every 724 of our population, compared with one to 1,087 in the British Isles and Continental Europe.

President Wilbur, in his address a year ago before the House of Delegates, urged that it be a great policy making body. In other words, the American Medical Association must be a great forward looking organization in all that pertains to medical and surgical progress.

The House of Delegates works under high pressure. It meets for two whole days prior to the Scientific Assembly, with but a short recess for the lunch at the noon hour. How this vast amount of business is transacted is a marvel to many. Three weeks before the annual session a handbook of over 100 pages is sent each officer and member of the House. This contains all reports to be presented to the House. Each delegate is supposed to read, study and digest all contained therein, and woe be the delegate who is derelict. He will never comprehend the progress of affairs, and the sessions of the House will be all over and he will wonder how it all happened.

At the last session, the afternoon of June 12th, the following officers were elected:

President-Elect—Dr. W. D. Haggard, Nashville, Tenn.

Vice-President—Dr. E. B. McDaniels, Portland, Oregon.

Secretary—Dr. Olin West (re-elected) Chicago, Illinois.

Treasurer—Dr. A. M. Hayden (re-elected) Chicago, Illinois.

The place of the next annual session in 1925 and its time will be decided by the Board of Trustees. The vote of the House was seventy ballots for Atlantic City, twenty-one ballots for Atlanta, Ga., and twenty ballots for St. Paul, Minn. It was reported to the House that the hotels of Chicago were guilty of extortionate rates during this session and so the House voted that with the recommendation above expressed, that the Board of Trustees first of all have assurance from the hotels of the proposed meeting place that during the session the usual rates shall prevail for hotel service and no more.

Attendance upon the sessions of the House of Delegates is strenuous work for your delegates, but we desire to assure you that it is a supreme delight to thus serve your interests in this greatest medical organization of all the ages.

The scientific work as presented to the fifteen different sections of the Association is appearing weekly in the issues of the *Journal of the Association*. It is too vast in product to warrant even a brief review. Read it as it appears and by so doing increase very materially your value as a servant of the people, seeking to do them good. No physician can possibly be up to date without *The Journal of the American Medical Association*.

Fraternally submitted,

GEORGE F. KEIPER.

JOSEPH RILUS EASTMAN,

ALBERT E. BULSON, JR.

Indiana Delegates to A. M. A.

REPORT OF THE BUREAU OF PUBLICITY INDIANA STATE MEDICAL ASSOCIATION

House of Delegates, Indiana State Medical Association:

Gentlemen:—Following the last annual session of the Indiana State Medical Association. September 26 to 28, 1923, it was decided to organize the work of the Bureau of Publicity, but it was impossible to obtain a suitable person as executive secretary until in December following. Dr. James H. Stygall, who had been medical director of the Indiana Tuberculosis Association since 1921, was appointed December 24, 1923. The report of the Bureau presented at the mid-winter meeting of the Council of the

Association on December 28, 1923, and published in the January, 1924, number of *THE JOURNAL* of the Association give a statement of the preliminary organization and the appointment of Dr. Stygall, together with an outline of the proposed work of the Bureau. The actual work of the Bureau covers the eight months ending August 31, 1924.

The program of the Bureau was printed in the January, 1924, issue of *THE JOURNAL*, and a copy of it was sent to the secretary of each of the county medical societies and to each member of the Council.

An Advisory Committee to the Bureau was appointed by the Council, consisting of Dr. S. E. Earp, President of the Indiana State Medical Association, Dr. E. M. Shanklin, Chairman of the Council, and Dr. A. E. Bulson, Jr., editor of *THE JOURNAL*.

Dr. Stygall assumed his duties January 1, 1924, and offices were secured at 1004 Hume-Mansur Building, Indianapolis, January 11, 1924. The Hume-Mansur Company made a very generous renting agreement with the Bureau after a conference between the manager and the chairman of the Bureau. This allowed the Bureau the use of its offices for the nominal sum of one dollar per month. The necessary furniture and stationery were secured at the lowest bids and complete records of all Bureau activities are on file in the office. Mrs. Louise Gillespie, who had been stenographer for the former State Health Commissioner for fourteen years, was secured as stenographer for the Bureau, with a salary of twenty-five dollars per week, and assumed duties January 10, 1924.

The office corresponded with other state organizations doing similar work, and considerable valuable information was received. A large amount of literature in booklet and pamphlet form was secured from the American Medical Association, American Society for the Control of Cancer, American Association for the Prevention of Heart Disease, United States Public Health Service, American Social Hygiene Association, and a number of others. Dr. W. N. Wishard, chairman, and Dr. Jas H. Stygall, secretary of the Bureau, also visited the offices of the American Medical Association in Chicago and secured much helpful data from officials there.

It was decided, after conferring with the various state medical associations and the American Medical Association, that the Bureau would not attack any particular cult, and would endeavor to secure results by giving the public the truth about scientific medicine in terms that the laity would understand. Newspaper articles of about 800 words have been prepared on various medical subjects, and one of these articles has been released to newspapers and periodicals in Indiana each week since February 29, 1924. An arrangement was made with the State Parent-Teachers' Association whereby 550 copies of each release are mailed to that office each week, and one of these copies is sent to the president of each local Parent-Teacher Club in Indiana. The news service was offered to almost every important newspaper and periodical in Indiana, and it has increased gradually in popularity until at this time the Bureau has a record of 115 newspapers and ten periodicals using it. The combined circulation of these newspapers and periodicals is 661,301. A conservative estimate of the readers of this circulation would be 1,983,903. These articles are carefully prepared with the assistance of a trained newspaper man, and censored by the members of the Bureau and at least one authority on the subject before release.

Twenty-seven releases have been published up to this time, including the following:

- Care of the Eyes
- Diphtheria
- Smallpox
- Pain
- Vitamines
- Infectious Diseases
- Appendicitis
- Antiseptic Surgery

- Scarlet Fever
- Measles
- National Hospital Day
- The X-ray
- Cancer
- Heart Disease
- Annual Examination
- Headache
- Tuberculosis, First Article
- Tuberculosis, Second Article
- Tuberculosis, Third Article
- Tuberculosis, Fourth Article
- Fourth of July Casualties
- Care of the Feet
- Medical Qualifications
- Hay Fever
- Deafness
- Ivy Poisoning
- Preparation of Children for School.

It was decided to hold medical publicity meetings whenever county medical societies so desired. These meetings are held in some public place and are free to the public. Medical speakers are provided by the Bureau upon request of county medical societies, and popular subjects such as cancer, tuberculosis, heart disease, annual examinations, and ideals of the medical profession are discussed in a way that the public can understand. The request is made of all prospective speakers that the addresses be made as impersonal as possible. Medical publicity meetings have been held at the following places with an estimated attendance of 2,330:

MEDICAL PUBLICITY MEETINGS	Estimated Attendance
February 21—Lebanon, Boone County	30
March 11—Patoka, Gibson County	250
March 26—West Lafayette, Tippecanoe County	200
April 3—Goshen, Elkhart County	400
April 7—Hopewell, Johnson County	75
April 16—Lafayette, Tippecanoe County	50
April 23—Princeton, Gibson County	600
May 25—Winchester, Randolph County	250
June 17—Noblesville, Hamilton County	200
July 9—Mt. Vernon, Posey County	50
July 10—Bloomington, Monroe County	25
May 13—Evansville, Vanderburg County	100
August 15—Greenfield, Hancock County	50
August 25—Connersville, Fayette County	50
Total	2,330

A representative of the Bureau has been on the program at the following county and district medical meetings:

COUNTY MEDICAL SOCIETY MEETINGS	Attendance
January 7—Hancock County Medical Society, Greenfield	50
February 14—Clay County Medical Society, Brazil	9
February 19—Madison County Med. Society, Anderson	30
March 13—Lake County Medical Society, Gary	35
March 28—Jasper-Newton Co. Med. Society, Rensselaer	12
April 1—Vigo County Medical Society, Terre Haute	40
April 1—Marion County Medical Society, Indianapolis	135
May 6—Huntington Co. Medical Society, Warren	40
July 17—Wabash Co. Medical Society, LaFountaine	25
Total	376

DISTRICT MEDICAL SOCIETY MEETINGS	Attendance
May 1—Third District Medical Society, New Albany	50
May 15—Ninth District Medical Society, Attica	50
May 14—Fourth District Medical Society, North Vernon	75
May 22—Sixth District Medical Society, Shelbyville	50
May 23—Eighth District Medical Society, Anderson	120
Total	345
Total attendance all meetings	3,051

Full reports of these meetings together with the names of the speakers and the subject of the address, also the names of the organizations under whose auspices the meetings were held are on file in the office of the Bureau. It has been found that much of the success of the publicity meetings depends upon the interest of the local county medical society and the amount of publicity given them.

The Bureau is very much in favor of promoting the annual physical examination idea which conforms with the program of the American Medical Association. The value of the annual examination is stressed by representatives of the Bureau at county and district medical meetings, medical publicity meetings, and in news releases. Several county medical societies including Tippecanoe, Posey and Porter have endorsed this plan. A film, "Working for Dear Life," has been secured at no expense, from the Metropolitan Life Insurance Company. This film is a very good presentation of the value of annual examinations and is available for the use of county medical societies.

Arrangements have been made with the State Chamber of Commerce, to supply speakers at Chamber of Commerce, Kiwanis, Rotary and other organization meetings, with the condition that the speaker and the meeting be sanctioned by the local medical society.

A letter, together with an editorial from the *Indianapolis News*, has been sent to 549 publications in Indiana. This letter and editorial discussed patent medicine advertising. The services of the Bureau are offered in supplying reports compiled by the American Medical Association on any particular nostrum.

The Bureau has sent and received a large amount of correspondence, and record of this is on file in the Bureau office. In the aggregate 2,481 letters and 24,054 pieces of printed matter had been sent out up to September first.

The program of the Bureau has been endorsed by the Indiana State Dental Association, Indiana State Health Council, and the Indiana State Health Officers' Conference.

The Bureau has been as economical as possible in its activities and attached herewith is a report of the expenditures and receipts up to date.

The services of the Bureau of Publicity have been offered to every committee and every county medical society of the Indiana State Medical Association. It is desired that the Bureau become a clearinghouse of information and service for members of the medical profession in Indiana.

The members of the Bureau of Publicity have had thirty-two meetings since January 1st.

Your committee has become convinced that the most important work of the Bureau of Publicity is to enlighten the public in regard to the fundamentals of medical science and education. It is purely an educational problem and it is significant that the recently created Gorgas Memorial has adopted a program similar to that which the Bureau has already put in operation.

The problems of the Bureau have been approached conservatively and cautiously and it is felt that the confidence of a considerable portion of the public and medical profession has been secured. The work is appreciably broadening in its scope and although the expenditures of the Bureau have been within the budget allowance, it would be desirable to have an increased appropriation for the ensuing year.

FINANCIAL REPORT	
Receipts:	
Amount available for the use of the Bureau of Publicity	\$7,000.00
Checks from two medical societies, part payment of speakers' expenses	20.00
Total	\$7,020.00
Expenditures:	
Executive Secretary's salary eight month period	\$1,416.62
Stenographer's salary, thirty-one weeks at \$25 per week	775.00
Furniture and office equipment	502.43
Rent four months (half rental paid by Dr. Stygall)	4.00
Electricity, four months' rental paid by Dr. Stygall	4.00
Postage	114.00

Mr. H. C. Feightner for editing news releases at \$5 each	110.00
Expenses of speakers to attend meetings	223.91
Telephone service at \$6 per month (one-half monthly rental)	48.00
Central Press clipping service at \$5 per month	40.00
Paper for mimeograph	36.35
Office supplies	69.68
Miscellaneous, including subs. to magazines, pamphlets, expressage, etc.	16.38
American Medical Association printed matter	20.26
Neostyle ink and repairs on machine, also stencil paper	21.35

Telegrams, tolls and installation of phone	10.65
Stenographer's salary from January 10-24, 1924	50.00
Total	\$3,462.62
Unexpended balance in petty cash fund	220.59
	<hr/>
	\$3,683.21
Balance	3,683.21
Balance in treasury at Terre Haute	3,336.79
Balance in petty cash fund at Indianapolis	220.59
Total balance	<hr/>
	\$3,557.38

WM. N. WISHARD, Chairman,
F. W. CREGOR, Secretary,
DAVID ROSS.

THE NEWSPAPER AND THE PUBLIC HEALTH

In her recently published work, *The Newspaper and the Historian*, Lucy M. Salmon, professor of history in Vassar College, has compiled a vast amount of material to indicate that the newspaper constitutes the most authentic record of the civilization of the period it covers. Repeatedly she makes clear the attitude of the press toward problems affecting the health of the people and the medical profession:

The newspaper is intimately connected with all questions of public health and its effective aid in promoting it is everywhere recognized. "Printers' ink is saving more lives than any other single agency employed by modern health workers," was the statement made at the forty-third annual meeting of the American Public Health Association in 1915. "You may cure individuals of their ills in the privacy of a sickroom, but to cure the public of its ills you must get into the newspaper," sums up the question. The press reports health congresses, announces medical and surgical discoveries, publishes vital statistics, and hospital reports; it is coming to reject advertisements of patent medicines and of quack doctors; it carries on campaigns against flies, mosquitoes, rats, caterpillars, impure milk, contaminated drinking water, and exposure of food to dust; it opens a column for giving free advice on matters of health—"the health column in newspapers is as indispensable as the joke column"—and in every way it records the growing interest in all questions of private and public health. In its turn, the department of public health often takes the press into its confidence and thus secures its cooperation in the presentation and circulation of information bearing on the subject.

As Miss Salmon indicates, the public is beginning to look more and more to the newspaper as a source of general information; it is important that the information be trustworthy and that it be supplied through authoritative sources. Readers who have studied the health advice now offered to the American public through a variety of health columns and syndicated articles have, no doubt, observed that a considerable part of this advice is written with a view to its selling qualities rather than with any relation to its authenticity. However, it is not only the articles on single subjects that are colored; the news itself

may be edited for ulterior motives. Of this Miss Salmon says:

In the consideration of public health, the press is not so much divided against itself as it is divided with reference to the parts of the subject itself. The press has a free hand in some of its campaigns for public health—flies, rats, mosquitoes, and caterpillars are not commercialized, and campaigns against them are universally popular. But the press suffers a heavy handicap when it attempts to improve other conditions that militate against the health of the public. Efforts to secure pure milk may run counter to milk dealers and to the Grange; proposals to improve the water supply come into collision with the taxpayers; epidemics must not be reported because they reflect on the board of health and diminish out-of-town trade; news of the bubonic plague must be suppressed because its publication will interfere with travel; disgraceful living conditions in congested districts must be ignored because the tenement houses are the property of wealthy residents; the results of accidents must be minimized because they reflect on the railroads, or on important local manufacturing industries, or on the large department store; danger from fire in buildings where many persons are employed must not be dwelt upon because the owners are influential citizens; advertisements of patent cure-alls must not be rejected because they make widely known the home town where they are manufactured; a "clean-up-week" must not be urged because it is opposed by the board of public works; exposure of filthy conditions behind the scenes in restaurants will result in boycotting the restaurants; advocacy of free clinics may incur the displeasure of the medical profession; the premature announcement of discoveries in medicine or surgery may bring only ridicule on the paper overzealous to public news.

In all matters pertaining to the public health as reported by the press, the inquiries of the historian must be specially directed toward discovering how far conditions that interfere with the good health of the public are commercialized and how far they are free from those outside influences that tend to limit the press in its discussion of them.

In her analysis, the author has indicated an important problem for the medical profession: how best to utilize the press for the progress of science and the teaching of health, and how to discount the commercial interests which are willing to use a great implement for what is essentially an immoral purpose.—*Jour. A. M. A.*, Sept. 22, 1923.

THE JOURNAL
of the
Indiana State Medical Association

Devoted to the Interests of the Medical Profession of Indiana
ALBERT E. BULSON, JR., B.S., M.D., F.A.C.S.
Editor and Manager

Office of Publication, 406 W. Berry St., Fort Wayne, Ind.

SEPTEMBER, 1924

EDITORIALS

OUR PRESIDENT

Dr. Samuel E. Earp, of Indianapolis, president of the Indiana State Medical Association for 1924, was born in Lebanon, Illinois, in 1858, the son of Joseph and Margaret Earp who were born in England. The father was a minister of the Methodist church for fifty years and his life was spent in Southern Illinois. He held several high offices in church circles and was one time president of the Board of Trustees of McKendree College, Lebanon, Illinois. His son, Samuel E. Earp, the subject of this sketch, attended high school at Alton, Illinois, then Shurtleff College, Upper Alton, Illinois, and he graduated from McKendree College, at Lebanon, in 1879, with the degree of Bachelor of Science. Three years later he received from the same institution the degree of Master of Science. He also has received the degree of Master of Literature.

In 1882 Dr. Earp graduated from the Central College of Physicians and Surgeons at Indianapolis and shortly afterward he became Professor of Chemistry in the same institution. Later he filled the chairs of Materia Medica and Clinical Medicine and was dean of the faculty. In 1906 he was given the chair of the Practice of Medicine in the State College of Physicians and Surgeons which was affiliated with Indiana University. He held this position until all of the medical colleges of the State were merged into the Medical Department of Indiana University, when he was given the chair of Clinical Professor of Medicine in the Medical Department of the University. At various times he has done post-graduate work in some of the medical centers of the United States.

Dr. Earp is a member of the staff of the Robert W. Long Hospital, St. Vincent's Hospital, and the Indianapolis City Hospital, being senior clinician in medicine at the latter institution. At various times he has been lecturer on medicine at the nursing schools of these and other hospitals. He has served as president of the Seventh District Medical Society and the Indianapolis Medical Society, and for four years was councilor for

the Indiana State Medical Association. He also served as police surgeon for the city of Indianapolis at two different periods and also served two terms as secretary of the Indianapolis Board of Health. During the World War he was appointed by President Wilson as chairman of the Medical Advisory Board, No. 56.

Dr. Earp has been editor of several journals and now is editor of the *Indianapolis Medical Journal*, and associate editor of the *Western Medical Times*. Aside from the writing he has done for the journals with which he is connected he has been a frequent contributor to the more important medical journals in the United States and has been given credit for original work in chemistry and medicine. He also has been a contributor and member of the Indiana Academy of Science. He is a Scottish Rite Mason, a Shriner, and a member of the Knights of Pythias. In politics he is a Republican, and in religious affairs he is in affiliation with the Methodist church.

Dr. Earp has done considerable research work in Materia Medica and Therapeutics, and has an enviable reputation as a clinician. His contributions to medical literature have been numerous and of the practical kind appreciated by the general practitioner of medicine. As an editor he has been of the constructive type. His advice* is always of the common-sense type and his criticisms are not only forceful but voice in an emphatic way the highest and best in medical conduct and practice.

HEALTH PROMOTION PROPAGANDA

Judging from what we receive in almost every mail, it is very evident that an enormous amount of literature concerning every phase of health promotion is sent out daily to the lay and professional press, and probably to many individuals, and the surprising feature connected with it is that this literature comes from such a large number of separate organizations. Some of the most valuable contributions come from the United States Public Health Bureau, and the New York State Board of Health, the latter being particularly progressive and aggressive in its fight for better health conditions. However, we cannot help feeling that much of this uplift work represents wasted effort and wasted expense, for the reason that there is a great deal of duplication not justified or profitable. Many of the articles that are sent out by certain organizations are either reproductions or revamping of articles sent out by other organizations. This duplication represents an enormous extravagance in clerical help and postage which could be saved by combining forces. In New York, for instance, the Board of Health is sending out health propaganda almost every day, and the character of this work is excellent, so why should it be duplicated at enormous expense of money and time by lay organizations?

If the New York State Board of Health is not covering the ground, then why not turn in and help that organization and thus save an enormous sum of money now more or less wasted?

What is true in New York concerning health propaganda is true in other states, Indiana included. We recently have established a Bureau of Publicity of the Indiana State Medical Association, and the Bureau is sending out to the lay press articles giving trustworthy information concerning various diseases and health problems in general. These articles are in a sense a duplication of articles sent out by the Indiana State Board of Health, the A. M. A., and many other agencies. Many of us have wondered if it would not be a good idea to encourage the State Board of Health to broaden its scope of usefulness in disseminating propaganda concerning health problems, while the Bureau of Publicity of our Association devotes more time to the question of educating the public concerning the safe requisites for granting licensure for the practice of medicine. There are enough practical problems pertaining to medical practice and the economic interests of the medical profession to take the time of the Bureau of the Association without duplicating the efforts of such organization as our State Board of Health and similar official agencies.

This tendency to multiply agencies for accomplishing results in educational work of every description has led to the development of a large army of needless officers and clerical help who, in a measure, duplicate the work of others, and the maintenance of which, in the final analysis, falls upon the people. Our criticism is intended to be constructive, and our suggestion is that we ought to devote our energies and our financial support to fewer agencies and to make those agencies better and more far-reaching in effect. At present the average editor is swamped with literature touching upon various phases of individual and community health, and he gets so sick and tired of seeing the stuff that he throws much of it in the wastebasket, whereas if he got less propaganda, and that from a central organization with influ-

ence and standing, the probability is that he would make use of it.

So far as the activity and support of the medical profession is concerned, a great work can be accomplished by putting forth an effort to acquaint the public with the facts concerning how all medical discoveries have been brought about. At present there are any number of agencies attempting to discredit scientific medicine, and in a large measure they are succeeding because little is being done to offset their work. The people should be impressed with the fact that all of the great scientific discoveries pertaining to every phase of life and health have come about through the investigation and experience of intelligent and well-trained men, and not a single discovery of benefit to humanity can be credited to such pretenders as the chiropractors and others of their kind. The

people should know why we pay taxes to maintain our institutions of learning, and why the men who have had training in those institutions deserve recognition above those who have not had such training. The people should know that no idea carries with it any semblance of truth or virtue whether advanced by a chiropractor or any other pretender that has not been accepted by educated and trained medical men and its limitations defined. The people need to know that members of the regular medical profession are not infallible, nor do they claim to be, but the educated and well-

Reserve Hotel Accommodations

For the Indianapolis Session

At Once

Write Dr. C. R. Strickland, Chairman
Hotel Committee

333 Bankers' Trust Building
Indianapolis

We expect 1,500 members to register, and an attendance of 500 or more from surrounding states.

trained medical man is far less likely to err than the uneducated and illy-trained man with little or no knowledge of medical science, and the human body with its diseases and imperfections is too valuable to be tinkered with by ignorant pretenders. These facts should be given to the people day after day, and there is no one better able to give this information than an organized medical profession. It is a work to which we can devote time, effort and money, and it is a work that is not being done by any other organization, whereas the dispensation of knowledge concerning the way to prevent or treat everything from consumption to barber's itch is dispensed in pamphlets by the carload from a large number of agencies that could very profitably combine their efforts.

THE VOLSTEAD LAW AS APPLIED TO PHYSICIANS

At a recent meeting of a society of medical jurisprudence composed of physicians and lawyers the consensus of opinion was that the two professions represented ought to protest openly and vigorously against the Volstead Act because in the enactment and enforcement of that Act the old common law maxim that "a man must be considered innocent until proved guilty" is reversed. It was pointed out that the Volstead Act does not contain a paragraph in it relating to physicians that does not carry with it the imputation that the medical profession is dishonest and that prohibition cannot be enforced unless the medical profession is restrained. Under the Act a physician is denied his right to trial by jury when arrested for an offense against the Act. The argument was advanced that the Volstead Act was framed by men who know nothing about the practice of medicine and that simple justice demanded that any legislation affecting the medical profession, if it does not originate in the profession should at least have the sanction of the profession before its enactment. While it was admitted that there is some difference of opinion as to whether alcohol is a necessary therapeutic agent, it was pointed out that a very large number of physicians doubtless recognize it as a valuable if not necessary therapeutic agent in the treatment of certain diseases such as pneumonia, influenza, and other infectious diseases. Attention also was called to the expression of opinion from the American Therapeutic Society which is as follows: "Alcohol in the form of brandy and whiskey is a drug of great importance in a limited number of diseases and conditions for which there is no known substitute."

During the discussion it was charged that the privileges accorded doctors under the Volstead Act are greatly abused, as evidenced by the fact that some doctors just prior to the holidays give out hundreds of prescriptions within two or three days. In one locality when whiskey was obtained from a distance thirteen prescriptions were issued during three months, but when the government established a dispensary there ten thousand prescriptions were written within a period of one month. The temperance advocates claim that ninety-five per cent of the prescriptions for whiskey, written by doctors, are for persons who desire the whiskey for beverage purposes. That this unnecessary, unprofessional and unlawful prescribing of alcoholic liquor for beverage purposes by unscrupulous physicians is denounced by the responsible element of the profession is indicated by the adoption by the House of Delegates of the A. M. A. of a resolution which is as follows: "Resolved, that in the judgment of the House of Delegates of the A. M. A. in session assembled, every state and county medical association should use its best endeavor to discipline physicians who

either negligently or wilfully prescribe alcoholic liquors other than in accordance with the law, and to purge the medical profession of physicians who wilfully, under the cloak of their profession, prescribe alcoholic liquors for other than medicinal purposes."

There is much evidence to indicate that even though the physicians' rights and privileges under the Volstead Act are limited, yet the provisions of the law are liberal and under any circumstances are grossly abused. The whole question is a complicated one, for even admitting the necessity of limiting the prescribing of liquor for medicinal purposes it would be quite impossible to decide what shall be considered a reasonable amount of liquor to be prescribed by any one physician, and there is ever the possibility of abuse of the privilege. When all is said and done, it must be admitted that no doctor who is perfectly honest in his contentions will have any trouble with the Volstead Act, and the medical profession, as a profession, will be dealt with far more liberally when it disciplines and penalizes its members who at present show every evidence of being law-breakers.

PROTECTION FROM SMALLPOX

For several months smallpox has prevailed in various parts of the United States and in some localities the spread of the diseases has reached alarming proportions before being checked. Fortunately health boards everywhere have been active in insisting upon a general vaccination in the infected communities and for the most part the school authorities and citizens have co-operated to the fullest extent in carrying out the recommendations and suggestions of public health officials. The various epidemics have thrown some side lights on the subject of vaccination and its effect upon smallpox, and the public health service has furnished some interesting information with regard to an outbreak of malignant smallpox beginning in Minnesota in the early part of this year. The report as published in *Health News* is as follows:

The disease was introduced at Duluth in January, 1924. The first case was that of a male nurse, fifty-four years of age who had never been successfully vaccinated and who died within a few days. Subsequently there developed other cases, making a total of 182 for this epidemic. It is interesting to note that 139 of the persons who had smallpox had never been successfully vaccinated in their lives. Of these 139 persons who had never been successfully vaccinated, thirty-four died. Of the remaining forty-three persons who had the disease, thirty-nine had not been successfully vaccinated within seven years and of these thirty-nine, six died. This leaves four cases still to be accounted for. Of these, two had been vaccinated in less than seven years, but did not die from the disease. Two others had had smallpox

when they were children and they recovered. Of those persons who died, although they had been once successfully vaccinated, we have the following histories: One woman, aged fifty-nine, was vaccinated in childhood; one aged forty-nine was vaccinated when eight years old. One woman twenty-four years of age, who was not in very good physical condition at the time she contracted the disease, had been vaccinated in childhood. One man thirty-seven years of age had been vaccinated when he was three and a half years old. One man fifty-five years of age had been vaccinated when he was six months old. One man who was fifty-five years of age had been vaccinated when he was one year old.

From these data, which have been very carefully collected, it will be seen that smallpox still runs true to form in that it attacks persons who are either not protected by vaccination at all or who have lost the protection which they once had.

Smallpox has never occurred to any appreciable extent in persons who have been recently, successfully vaccinated.

The fact should be emphasized that one vaccination is not sufficient to protect an individual throughout life. The child should be successfully vaccinated before he enters school; he should be successfully vaccinated again between the ages of twelve and twenty and vaccination should again be repeated between forty and fifty.

Vaccination should be performed at any time when one is exposed to smallpox provided there has not been a successful vaccination within twelve months.

As at present performed, vaccination causes very little inconvenience, especially when compared to an attack of smallpox. The first successful vaccination usually causes more inconvenience than subsequent ones.

The production of vaccine is carefully supervised and physicians no longer use the cross scarification method in performing this operation.

One of the best methods of vaccinating is to make a short incision or scratch, a single line, just penetrating the upper layers of skin, stopping just short of drawing blood. Of course, the arm must be cleansed, the instrument sterile, and fresh vaccine should be used. If more than one line is made, care must be exercised to have them far enough apart so that they will not "run together." These lines should not be closer together than two inches.

Another method is the use of a little instrument which makes a very small abrasion on the skin, scarcely more than 1/16 inch in diameter. If two such abrasions are made, these should be at least two inches apart.

There is no country in the world where vaccination and re-vaccination have been sufficiently carried out to eradicate smallpox completely, but wherever vaccination has been practiced, smallpox has diminished in proportion.

A MEANS OF SECURING CHEAPER LIFE INSURANCE

Life insurance now is considered a necessity by men in all vocations. It is a guarantee that the insured's family is provided for, and it may be made to protect an insured's estate when applied to liquidate obligations. That life insurance rates are too high is a recognized fact, but none of the large and trustworthy life insurance companies show any marked tendency to adopt policies that would result in a lowering of premiums without jeopardizing the standing of the companies or the interests of policyholders. All of the companies could effect a decided saving if they would cut down on the enormous overhead expense from which they suffer. This would mean cutting off from the payrolls a lot of "chair warmers," as it also would mean reducing the salaries of many officers, but there is every reason to believe that the riotous expense of most of the prominent life insurance companies are not necessary and are not justified by the results produced. Ample evidence has been brought to light to show that some men connected with life insurance companies, as a result of those connections, have amassed very large fortunes without, figuratively speaking, turning a hand. Other companies make it a practice to pay princely salaries to not one but dozens of officers and employees, and sometimes the men who draw such salaries are little more than figureheads. It is this enormous and oftentimes unjustifiable overhead expense which makes it necessary to charge large premiums. But there is another factor which is equally prominent in adding to the necessity for large premiums, and that is the inefficient and untrustworthy work done by a certain proportion of the medical examiners for every life insurance company in existence. This is not a reflection upon the medical profession as a whole, but may be accounted for by the penny wise and pound foolish policy followed by many life insurance companies in that they attempt to save money by paying niggardly fees for medical examinations, resulting in securing poorly equipped examiners while at the same time the company is fairly riotous in awarding salaries to its other employees. The inevitable outcome of such policy is to secure a greater number of poor risks than would be the case if all the examinations were thoroughly trustworthy. We have knowledge of many instances where a notoriously incompetent medical man has passed poor risks and within a few months or at the most within a few years the company has been forced to pay a good many thousand dollars upon the lives of policyholders who had a fatal disease when they took out their insurance. These unnecessary losses brought about by poor medical examinations and perhaps a desire on the part of company officers to save the expense of the good medical examiners whose services might not be obtained

except on the payment of larger fees, must necessarily increase the cost of life insurance. Therefore, the evident duty of the officers is to secure as medical examiners men of highest type and be prepared to pay adequately for the services, with the full recognition of the fact that the best is the cheapest. In fact if some of the large life insurance companies will spend more money on their medical departments and less upon the executive and other departments they will make more money and be able to sell their life insurance cheaper to the public.

REQUIRE EQUALLY HIGH QUALIFICATIONS OF ALL WHO PRACTICE MEDICINE

Statistics published in *The Journal of the American Medical Association* for August 16, 1924, show that the medical schools of the United States are training physicians in accordance with the present-day extensive knowledge of medicine. The turning out of well trained physicians is only one factor, however, in securing for the public the benefits of modern scientific medicine: adequate legal restrictions must be provided against ignorant or inadequately trained doctors. Such legal restrictions, indeed, have now been established in all but eight states for those generally regarded as "physicians," since medical practice laws in most states have established for physicians the educational standards adopted by our better medical schools. Unfortunately, however, under various pretexts and by persistent hammering at legislatures, cultists of various types have obtained legal authority to treat the sick on qualifications lower than those required of physicians. These irregular practitioners assume a personal responsibility for the care of the sick and act as substitutes for the physician; and, since they do not have the physician's qualifications either educationally or professionally, they practice under false pretenses, and are a menace to the health and lives of their patients. As medical science has advanced during the last few decades, this menace has been constantly increasing. Delicate and highly technical procedures are being employed in the treatment of disease which, in the hands of unskilled or ignorant practitioners, are exceedingly dangerous to the patient. Modern medicine also has brought out a specific treatment for each of several diseases, and a failure to use this treatment may result in disaster to the patient. It is time that the dangers from untrained or incompetent practitioners should be generally recognized and that medical laws should be strengthened to safeguard the public against them. The legal phases of this problem have been clearly presented by Harry Eugene Kelly of the Chicago bar, who supports his statements with an array of court decisions that greatly add to their force. In the eyes of the law, according to Kelly, the word "physician" includes every one who assumes

the responsibility for the care of the sick and the injured; furthermore, the educational and professional qualifications required of physicians should apply with equal force to all who are granted legal authority to practice the healing art. The training given in medical schools has not yet reached perfection, but medical students are now being given a far better knowledge of the causes and treatment of diseases than was possible twenty or more years ago. The greatest problem of today is how to secure for the entire public the widest possible benefits of modern scientific medicine. An important step toward the solution of this problem would be the adoption in all states of laws requiring reasonable educational qualifications of all who are to practice medicine.

THE ABRAMS FRAUD

The revolutionary Abrams technique for the diagnosis and treatment of disease which has swept the country is utterly without foundation in science.

Such is the verdict of the *Scientific American* Abrams Investigation Committee which for nearly a year has subjected the so-called electronic reactions of Abrams to a searching analysis. The practitioners of the Abrams method have declared it holds out a new hope for suffering humanity. Its enemies have dubbed it the greatest piece of charlatanism in history. The movement has spread to all parts of the world and threatened to upset the entire theory of the medical profession.

There have been forty-four different variations of the Abrams apparatus in this country alone. The Abrams method has had 3,500 practitioners; other methods have each had a thousand more. The number of patients of all of them has run into hundreds of thousands.

"The so-called electronic reactions of Abrams do not exist—at least objectively," declares the committee. "They are merely products of the Abrams practitioners' minds. These so-called reactions are without diagnostic value. And the Abrams oscilloclast, intended to restore the proper electronic conditions in the diseased or ailing body, is barren of real therapeutic value. The entire Abrams electronic technique is not worthy of serious attention in any of its numerous variations. At best, it is all an illusion. At worst, it is a colossal fraud.

"This electronic development has caused a sad state of affairs in this world of ours. It has given rise to all sorts of occultism in medicine. It has been a renaissance of the black magic of medieval times. It has given free reign to idiotic ideas—ideas which would formerly have been laughed out of existence at their very start. Suffering humanity has been made so many lavish promises of late that it is a sad disillusion now to go back to our conservative orthodox medicine, which, after all, remains our mainstay.

"When the day arrives for the practical application of such serious research work, we may be certain that it will have nothing in common with the passing electronic craze. Insofar as concerns the apparatus employed, the methods of exploitation, or the qualifications of the men engaged in the work, it will be wholly without resemblance to the cults whose basic ideas and whose technique this committee denounces."

Dr. Abrams died suddenly of pneumonia on January 13th, in the midst of the *Scientific American* investigation. His death came on the eve of his scheduled appearance as the star witness in the trial of Dr. Mary Lecoque, an E. R. A. practitioner, at Jonesboro, Ark., charged with using the mails to defraud.

THE VALUE OF ACCURATE DIAGNOSIS

"A sharp, critical analysis of disease conditions and their prompt detection are two of the prominent features of modern medicine, and largely contribute to its right to be called scientific." In considering these words of a keen student of medical progress, the practitioner is likely to call to mind mistakes as well as success of diagnosis, and properly so; for careful self-examination and review in such matters are the impelling motives to progressive improvement. The recent literature of medicine abounds in frankly recorded instances of medical errors as well as discouraging prognoses. It is advisable sometimes to temper the spirit of humiliation with some of the encouragement that comes from success. An instructive instance of the worth-while character of discriminating diagnosis has been furnished by Crowell in a case of nephrolithiasis. Frequently the determination of the presence of a stone in the urinary tract is all that the clinician asks as a guide to his procedure for relief. Quite properly, he puts little if any reliance on the prospect of dispelling urinary calculi by a specific solvent. Nevertheless, it is important to remember that such concretions may be decidedly unlike in chemical composition. In Crowell's patient, the detection of cystin in the urine was the indication for a successful attempt to free the kidney from calculi by keeping the urine alkaline; for, in contrast to phosphates, cystin is soluble in alkalis. The disintegration of a stone associated with cystinuria by internal administration of alkalis, pelvic lavage with alkaline solutions (which may include even alkaline antiseptics such as mercurochrome-220 soluble) and proper limitations of protein in the diet is a good achievement. Cystinuria is an anomaly of metabolism that persists throughout life. Calculi are therefore likely to be formed at any time. Surgery, the usual mode of relief, is unsatisfactory in principle because of the frequency with which stones recur. Discriminating diagnosis offers a clue to the use of less drastic procedures.—*Jour. A. M. A.*, August 2, 1924.

INFANTILE PARALYSIS

The epidemic of infantile paralysis occurring in Detroit and preventing the opening of some of the schools in that city seems to have been a forerunner of a mild epidemic of the malady in this state. Not in years have we had as many cases of the disease as have been reported from various sections of the state, and the seriousness of the situation and the tragic results which have followed or may follow in its wake are worthy of the attention of health officers and school authorities in an endeavor to limit progress of the malady.

The unfortunate feature connected with this disease is that it has an unheralded onset, though its incubation period is reported by authorities as being from two to fourteen days with the majority of cases occurring within four to six days. Quoting MacCallum's *Pathology*, "The disease begins with vomiting, fever, leukocytosis and general malaise. Pain in the back, neck and extremities is nearly always present and is sometimes extreme, so that the child winces and cries out on being moved. After a few days' illness paralysis suddenly appear and extend to involve one or both legs, or a leg and an arm, or even all of the extremities together with the trunk muscles. When the respiratory muscles are involved, death ensues." The paralysis is most commonly of the flaccid type, but in some cases is spastic. The mortality is fairly high, but many cases recover with permanent paralysis. Atrophy of the muscles with subsequent contractures lead to the most crippling deformities. On the other hand, there are many so-called abortive cases in which after the initial febrile symptoms are over recovery takes place without any paralysis. Survival of the disease leaves an immunity, and the serum of such immune individuals has a protective effect in animals inoculated with the disease producing agent.

According to Flexner, Noguchi and others the disease is infectious and may be transmitted from person to person, which accounts for the epidemics. The causative agent is an extremely minute coccus, appearing in chains, which is small enough to pass through a porcelain filter. It can be isolated from the infected brain and cord, and can be shown to be present in the nasal mucosa of inoculated monkeys and persons ill of the disease. Flexner is of the opinion that the organisms must gain access to the cerebrospinal fluid either by direct transmission from the nasal passages, or possibly along the lymphatics of the nerve sheaths. Perhaps the tonsils and digestive tract may play some part as portals of entry. He is convinced that all channels of infection are wholly subordinate in importance to direct contiguity, as natural immunity is decided and a comparatively small proportion of exposed individuals contract the disease. While the resistance of this virus is extremely great, both to cold and drying, it is

destroyed readily by heat and fortunately by sunlight. Green's *Medical Diagnosis*, 1923, makes the statement that the virus may remain in the nasopharynx for at least five months after recovery of the patient, but it is seldom infective after six weeks. In this connection he makes the further comment that there can be no doubt that a large number of cases escape diagnosis and act as unconscious carriers of virulent organisms while mixing with their kind. It therefore is evident that the onset, even in the usual case, may be of the most misleading character, simulating influenza, neuritis, rheumatism, meningitis, gastroenteritis, scarlatina, tonsillitis, herpes-zoster, or a simple bilious attack. Except during a severe epidemic the greater number of cases have no medical attendance until paralysis has declared itself. A certain number of cases are abortive and do not show paralysis, although they are as highly infective as those of the most fatal type. These facts, as pointed out by Greene, emphasize the necessity of determining the character of the deep reflexes and seeking for the cardinal symptoms of the early stage in all sick children during an epidemic, and importance should be ascribed not only to diminished reflexes, the usual finding, but also to any abnormalities in responses. It also must be remembered that suggestive weakness may be present even though decided paresis, or actual paralysis, is lacking.

Prognosis is not encouraging, as the disease is a terrible one by reason of the strong tendency to persistence of the paralysis. The mortality varies in different epidemics but runs from two to twenty per cent. Death occurs usually before the end of the fourth day in fatal cases. Little can be done by way of treatment, owing to the fact that such a large percentage of cases are unrecognized and perhaps are not even seen by a physician until after paralysis develops. In certain cases brisk and persistent eliminative treatment may result in complete or partial recovery.

With the presence of infantile paralysis in Indiana the subject of prophylaxis and prevention of the spread of the disease assumes grave importance. The Indiana State Board of Health requires that every case must be isolated, and for six weeks no child from a family that has had a case of infantile paralysis shall be sent to school, church, moving picture shows, or any public gathering. The importance of this is indicated through experience with the disease in New York City, Chicago, and other places where epidemics have occurred, and where the disease is regarded as one that is communicated by personal contact and in which the slight and abnormal cases are the most frequent sources of the contagion. As stated by Vaughn (*Epidemiology and Public Health*), "It should not be forgotten that articles soiled by the excretions of the sick and those handled by the sick may bear the infection, and all these should be burned or disinfected. It has

been demonstrated definitely that individuals who show no manifestations of having the disease themselves may carry the virus in their upper respiratory passages. It has not been experimentally shown, either for or against the possibility of healthy people carrying the virus in or on their clothing. Until we have definite information on this point, in our judgment it would be wise for the health authorities to demand the thorough sterilization of the clothing worn by those who come in contact with active cases. The presence of the virus in the stools has been demonstrated, and for this reason we recommend the thorough disinfection of these discharges."

EXPLOITING THE MEDICAL PROFESSION

The medical profession as a profession naturally is altruistic and philanthropic. It is charitable to a fault. That it always has been and always will be imposed upon by various organizations and individuals is a part of the every day life of the profession. Of late, however, the medical profession has been imposed upon and exploited to a greater extent than ever before, and the matter is beginning to receive serious consideration in the minds of all thoughtful medical men, and to be of sufficient importance to justify consideration at the hands of the Judicial Council of the American Medical Association in a report presented at the Chicago session. This report primarily deals with the question of selling medical services to lay organizations that in turn sell the services to the public at a profit, and as an example cites the formation of a number of commercial organizations that as middle men or jobbers are offering to furnish periodical medical examinations to the public generally for a stated sum per annum, and to send reports of the findings to the examined. Some of these organizations are giving advice to the examined as to what they should do for the conditions found. The examinations can be made only by physicians, and hence these companies are signing up contracts with physicians throughout the country to make such examinations, and according to the terms of the contract the reports of the examination are to be forwarded direct to the company. For these examinations the company pays the physician a definite price and then sells the results of the examination to the individual examined at a much higher price. One of the largest jobbers in this line buys the services from the physician for \$5 and sells it to the individual for from \$20 to \$25. It is the knowledge of the physician that gives value to the services, and this value is not enhanced or increased any by passing through the jobber's hands.

The Judicial Council of the American Medical Association says that the problem is one of the most serious that we have been called upon to meet and asks the question, "Shall the medical

profession vend its products directly to the consumer or shall it sell them to a middle man or third party?" That these jobbers are in the business for profit to be made and not through any desire to render any great public service is evidenced by the fact that the business nets a profit of from thirty to forty per cent on the actual money paid in. Furthermore, this business does not come entirely from individuals, but comes from contracts with industrial concerns who pay a certain amount to have all of their employees examined, and contracts are made with insurance companies to make periodic examinations of policyholders, the physician making the examination being paid \$2.50 and the insurance company paying \$5 to the jobber. The examinations of employees of industrial plants are made by physicians sent direct from the home office of the jobber and not by the local physicians. One of these companies claims to have eight thousand physicians on its list of examiners, and the Judicial Council of the A. M. A. can understand why so many medical men have been induced to consent to give their services for a small remuneration to a company to resell to the individual only by assuming that these contract physicians fail to analyze the situation and to comprehend its significance.

Periodic health examinations of individuals have been advocated by the American Medical Association, but when these examinations are conducted by commercial institutions organized for the purpose and to exploit the medical profession, the plan must inevitably result in the undermining of the confidence of the people in the ability of the practitioner, and especially as these jobbers give out the impression that the physician making the examination is not competent to answer any questions regarding his health and that a proper analysis of the findings can be made only at the home office. It is but a step from what is now being done to the extension of services so that they include treatment, and then we will have commercialized medicine in its truest sense. In fact it is quite within the realm of probability that these health institutes will follow the lead of the Ford Hospital, in Detroit, and certain other industrial hospitals, and furnish medical and surgical services as a purely commercial transaction, the medical profession furnishing the brains and service at a stipulated salary, and the institution for which they are under contract selling the services to the public at a profit. In other words, these commercial institutions are practicing medicine by proxy, and the medical men who are under contract with these institutions are being exploited in an unfair manner. As pointed out by the Judicial Council of the American Medical Association, "the problem is one of the most important and serious that we have been called upon to meet," and it is time that we devise ways and means to convince the people that the proper person to make

periodic health examinations and to attend to the ills of humanity is the family physician, aided when necessary by local specialists. It is possible that some of the younger men in the medical profession are sorely tempted to accept the salaries offered by these commercial institutions, but they should be encouraged to refuse all offers of that kind for the reason that acceptance not only means exploiting the medical profession and destroying the individuality of the physician, but it means imposition upon the public and in the end a lowering of respect for the medical profession. It is hoped that we can induce medical men everywhere to adhere to the letter and spirit of a resolution before the A. M. A. which states that "the practice of medicine for a definite amount per day, month or year for an indefinite service is against the principles of medical ethics as defined by the American Medical Association." If this is made the guiding rule for all medical men who are tempted to engage in contract practice of any kind we shall see less effort on the part of laymen to practice medicine by proxy.

CHIROPRACTIC TRICKERY

Many lay publications, among which are not a few daily newspapers, are attempting to give their readers up-to-date and trustworthy information concerning various health problems, and to that end are publishing from time to time articles concerning various diseases, and so far as we know these articles, when published under the authority of the editors and managers as pure reading matter, have been written and vouched for by physicians recognized as capable through education and experience to speak with authority. Articles of such nature have been sent to the lay press by the American Medical Association and numerous other well-known and responsible organizations.

Quite recently the Bureau of Publicity of the Indiana State Medical Association has been issuing articles covering health problems, and in particular giving information concerning the more or less prevalent diseases. At this time of the year it seemed appropriate to issue a short article on hay fever, with no reference to any particular treatment but giving the latest information as to the cause of hay fever, its symptoms, and the indications as to the character of treatment to be instituted. One of these articles came into the hands of the *Fort Wayne Daily News-Sentinel*, of Fort Wayne, and orders were given to publish it. It appeared on the first page of the issue of Saturday, August 16, 1924, and the Indiana State Medical Association was not only given credit for the information given but the various paragraphs of the entire article were put in quotation marks to indicate that it had been copied exactly. The last paragraph of the original copy was as follows:

"Medical science has found that skin tests will show to

which pollens the individual is sensitive and in many cases physicians are able to prevent hay fever by the early or pre-seasonal administration of solutions made from the offending pollen."

Much to the surprise of the editors and managers of the *News-Sentinel* as well as to the members of the medical profession who happened to see the article, the last paragraph had been altered by a compositor in the *News-Sentinel* office, a chiropractic sympathizer, and the paragraph with quotation marks, instead of being according to the copy was made to read as follows:

"Antitoxin and chiropractic adjustments are the latest remedies offered for the relief of hay fever sufferers."

Thus the Indiana State Medical Association, through the trickery of a chiropractic sympathizer, is put in the light of not only recognizing chiropractic adjustments but recommending such nonsense for the relief of hay fever. Very naturally the general manager and the editor of the *Fort Wayne News-Sentinel* are chagrined to think that such a piece of duplicity has been practiced upon them, and that they have been unwittingly made to endorse something in which they have little or no faith, and they have offered their sincere apologies, but, as one layman has said, "The damage is done. What are you going to do about it?"

To our notion this piece of trickery will act as a boomerang, for no matter how the great body of chiropractors may think concerning treachery of one of their number, the fact that such a base trick was resorted to in order to gain publicity and false approval of their faith is bound to react to their disadvantage among editors and publishers of lay papers and, in reality, it is advertising and advertising alone which will keep the chiropractic nonsense alive. The incident only shows to what extent the chiropractors will stoop in order to gain advantage.

EDITORIAL NOTES

DEAR DOCTOR:

THE JOURNAL and the Cooperative Medical Advertising Bureau of Chicago maintain a Service Department to answer inquiries from you about pharmaceuticals, surgical instruments and other manufactured products, such as soaps, clothing, automobiles, etc., which you may need in your home, office, sanitarium or hospital.

We invite and urge you to use this Service.

It is absolutely FREE to you.

The Cooperative Bureau is equipped with catalogues and price lists of manufacturers, and can supply you information by return mail.

Perhaps you want a certain kind of instrument which is not advertised in THE JOURNAL, and do not know where to secure it; or do not know where to obtain some automobile supplies you need. This Service Bureau will give you the information.

Whenever possible, the goods will be advertised in our pages; but if they are not, we urge you to ask THE JOURNAL about them, or write direct to the Cooperative Medical Advertising Bureau, 535 N. Dearborn St., Chicago, Illinois.

We want THE JOURNAL to serve YOU.

THE Time—Wednesday, Thursday and Friday,
September 24th, 25th and 26th.

The Place—Indianapolis.

The Event—The annual session of the Indiana
State Medical Association.

THE golfers who attend the Indianapolis session will have their tournament on Tuesday, September 23rd, at the New Highland Golf and Country Club.

A DIGEST of articles appearing in *Hygeia* is furnished free to newspapers. It isn't a bad idea for local medical societies to attempt to get their local lay papers to use the copy.

WE thank the journals and bulletins of medical societies of cities and states of the Middle West that have published announcements concerning the Indianapolis session of our Association.

Do not neglect early registration at the Indianapolis session as upon registration depends the receipt of stickers granting special parking privileges, and tickets for the stag theater party.

"RED PEPPER REVUE" is a rather suggestive title for a stag theater party. Perhaps if the mayor of Indianapolis is to be censor, as promised, the affair will not be as hot as the title indicates.

THOSE who expect to attend the Indianapolis session will be wise if they make their hotel reservations in advance. Write Dr. C. R. Strickland, 333 Bankers' Trust Building, Indianapolis, chairman of the Hotel Committee.

THE Indianapolis session has been well advertised in surrounding states and in consequence we look for a large attendance from outside of Indiana. Indiana doctors should make it a point to give all visitors a cordial welcome.

THE medical profession is invited to attend the State Council of Charities which meets in New-castle, October 4th to 7th, inclusive. The general theme of the meeting will be mental health in its relation to civic and social conditions.

SPECIAL parking privileges have been secured for those who attend the Indianapolis session and will be appreciated. Traveling by automobile is popular, but what to do with the automobile after arriving at one's destination is a problem oftentimes difficult to solve.

THE results of the conference of legal councils and representatives of state medical associations for the purpose of drafting a uniform medical practice act for all of the states, held in Chicago last month, will be reported at the September session of our Association.

THE officers of Sections or others who preside at the various meetings of the Indianapolis session are reminded that every meeting must be called on time and all those taking part in the program limited to the time set for their use or otherwise

the program will not go off smoothly and satisfactorily.

THERE is an increasing number of golfers among medical men. A golf tournament has been arranged for the golfers among medical men who attend the Indianapolis session. Full particulars are given in the official program published in this number of *THE JOURNAL*.

ATLANTIC CITY has been selected as the place for the next session of the American Medical Association. This will be joyful news to those who have suffered the inconveniences and discomfort attendant upon sessions of the Association in cities illy prepared to care for large conventions.

THE Committee on Arrangements for the Indianapolis session especially urges early registration in order that tags granting special parking privileges for automobiles may be secured promptly upon arrival in the city. Furthermore, theater tickets will be distributed in the order of registration.

THIS number of *THE JOURNAL* contains the official program for the Indianapolis session. A rare treat is in store for all those who attend the session. Come and hear some of the leading clinicians and teachers, and get acquainted with those confers from outside of the state who will attend the session.

THE Cadle tabernacle at Indianapolis is said to seat twelve thousand people. It has been engaged for the public meeting to be held during the Indianapolis session. The members of the Association should encourage the attendance of laymen at the public meeting, for the addresses by W. A. Pusey, W. J. Mayo, and Hugh T. Patrick will be well worth hearing.

EVERY reputable physician in Indiana should read the article "Regulation of Physicians by Law," by Howard Eugene Kelley, which appeared in Part Two of the *Bulletin of the American Medical Association* for the month of June. The articles clearly set forth the things for which the legislative committee of the Indiana State Medical Association is striving.

IT should be remembered that the program for this year's session of the Association is an innovation, and it is hoped that it will stimulate interest and be an example for our own membership in making up the program for another year. We are not inviting outsiders because we do not have sufficient talent in this state, but variety and change is always welcome as a stimulus to future effort.

THERE is a steady increase in the number of

chair warmers in public service. Some of them do a little worth while work, but the others are mere loafers and leeches living off the public purse. Where will it all end? Why contribute more to this feature by supporting an enormous increase in the number of agencies that are attempting to regulate individual and community health?

THE editor of the *Kentucky State Medical Journal* in answering our request for a notice of our Indianapolis session has the following to say: "Your all-star cast program looks powerful good and I would like mighty well to advertise it extensively, but your session comes exactly at the same time as ours and we cannot afford to let anybody in Kentucky find out what a fine program you have."

THE recommendation has been made that a medical corps within the United States Veterans' Bureau be created and that post-graduate instruction be given to those who are connected with the corps. Certainly this is a step in the right direction, for the veterans of the late war deserve the best of attention, and there are many localities where they are not getting it.

WE have had some nice things to say about *Hygeia*, based upon the reading pages of that lay publication, but we are in hearty accord with the editor of the *Nebraska State Medical Journal* who complains about the advertising contained in *Hygeia*. In accepting advertising copy for *Hygeia* as much care and discrimination should be used as is used in the selection of advertising copy for use in the *Journal of the A. M. A.*

THE Committee on Arrangements for the Indianapolis session announces a stag theater party for Wednesday evening, September 24th, which will be given in an especially chartered theater. The program is to be "burlesque deluxe, with Mayor Lew Shank as impressario and censor." The announcement further says that "You will not need field glasses." Perhaps this last is intended for the near-sighted doctors.

THIS year we will attempt to place in the hands of the members of the House of Delegates before the Indianapolis session a reprint containing all the committee reports with which the delegates should be familiar prior to going to Indianapolis. However, we sincerely hope that the work of the House of Delegates will be expedited this year by turning the committee reports over to reference committees before final action is taken upon them.

ONE of our lay friends calls the radio "a raspitory." Not a bad name at that, for we never yet have heard a radio that did not, most of the

time, rasp and squeak and squawk, whistle, howl, and give forth a variety of nerve-racking noises other than those coming from the broadcasting station. It reminds us of the early days of the phonograph. The radio will have to be perfected a great deal more than it is now before it makes "fans" of some of us.

LEGISLATIVE committees of the county medical societies should see that a copy of the article, "Regulation of Physicians by Law," by Howard Eugene Kelley, of the Chicago Bar, published in Part Two of the *Bulletin of the American Medical Association*, for the month of June, is placed in the hands of their candidates for the Indiana legislature. The article should serve to convince any fair-minded layman that such regulation of those who would assume the obligation of treating the sick is in every way just and right and in the interests of public welfare.

MANY of us would like to know just how those young Chicago millionaire murderers differ from other murderers who have been electrocuted or hanged very promptly. Their crime was premeditated and cold-blooded. That they are mentally unbalanced is admitted, but no more so than any others guilty of committing murder and hanged for it. The lamentable fact is that money does influence justice, and if money saves these young Chicago murderers from the gallows it also will free them in the course of a few years providing they get a sentence of penal servitude.

MEMBERS of the House of Delegates of the Indiana State Medical Association are reminded that this year they are expected to be in Indianapolis *a day earlier* than has been customary in attending previous sessions of the Association. This is because the first meeting of the House of Delegates of the Indianapolis session will be held in the Assembly Room of the Claypool Hotel at eight p. m. on *Tuesday*, September 23rd. Members of the Council likewise are reminded that a meeting for them is scheduled for 5:00 p. m. in the Assembly Room at the Claypool Hotel, *Tuesday*, September 23rd.

THIS is the season of the year for typhoid epidemics, and it is well for all physicians to spread information among their patients concerning the manner in which typhoid is contracted. The plain statement that you get typhoid through what you eat or drink, and that food and water should be free from contamination is worthy of widespread dissemination. On the other hand, in the face of a typhoid epidemic, health officers and others should be cautious in giving an opinion as to the *source* of contamination, for sometimes an erroneous impression as to how typhoid has been carried results in damage suits.

A FEW years ago a committee was appointed by the Indiana State Medical Association to investigate and report upon the question of having physiotherapy taught in the Medical Department of the University. The matter seems to have been pigeonholed, for so far as we know nothing has been done to investigate and carry out the suggestion. We recognize that physiotherapy has a place in the practice of medicine, and the people know it for they are flocking to chiropractors who practice a form of physiotherapy. Why should not the medical department of the University give this branch of medicine some attention by teaching how it can be used scientifically and giving the medical students a better idea as to its limitations?

WE would like to suggest to medical men who aspire to prominence similar to that of the actors whose names are spelled in electric lights before the theaters on Broadway, that it would be a good idea to take into consideration the cost and the association encountered. This comment is inspired by a knowledge that at present efforts are being put forth to print and distribute books which presumably create a sort of silk stocking crowd in the medical profession but which for the most part are enterprises that have been prompted and carried out for financial gain alone. With few exceptions these directories of "the leaders" in the medical profession go by the rule, "you pay to get in and you are left out if you do not pay."

THE psychology test of candidates for the army during the war showed that the average mentality of those who form the adult male population of this country is about that of the normal twelve-year-old child. This accounts for much of the fool legislation from which we suffer, for we know that not a majority of the legislators possess above the average mentality. However, twelve-year-old minds can be improved by education, though education of the twelve-year-old mind of the public is a slow process. The unfortunate condition confronting us is that education sometimes is in the wrong direction, and the propaganda of disturbers and those who have selfish interests to serve oftentimes is more prevalent and more insistent than propaganda covering right ideas.

THE American Medical Association, through its Board of Trustees, is open to suggestions concerning ways and means whereby the Association can be of service to the individual members and in particular in making them better physicians. One of the suggestions that was made by the secretary of the Association, Dr. Olin West, and which is deserving of serious consideration, is that the American Medical Association in co-operation with medical schools and individual physicians of ability and established reputation can furnish

instruction, not unscientific but of that practical sort that can be applied in every day work, through the county medical society to its members, or at least to those of its members who are concerned in keeping themselves informed to the degree that will enable them to become even better practicing physicians.

THE people as a whole are getting a little bit tired of the frequency with which rich law-breakers are able to escape justice. The poor devil who commits a crime usually gets the full penalty and no remission. A rich man secures long delays by taking advantage of technicalities of the law, and may be mildly penalized if not acquitted, but if he has money he manages to get free a little later on. It is such things that create unrest among the masses and lead to socialistic tendencies and sometimes anarchy. It is unfortunate that the medical profession, in a measure, is responsible for some of the miscarriages of justice, for we regret to say that it is possible to obtain so-called expert medical witnesses who are willing to testify to either the sanity or insanity of a well-to-do criminal, and oftentimes it is upon such testimony that the verdict hinges.

It is reported that one of the Mayos was quoted in the daily papers as having said in a public address that altogether too many men are attempting to do surgery without being educated and trained properly for the work. The next day after that announcement a lawyer in one of the Western cities, in addressing a jury in a malpractice suit, called attention to the statement and its source, and bitterly denounced the defendant doctor who was being prosecuted for malpractice following an unsuccessful result from a surgical operation of his performance. The defendant now says that the Mayo speech cost him five thousand dollars, the amount of damages awarded. Perhaps the verdict was a miscarriage of justice, and the jury was influenced by the speech in question, but the fact remains that the Mayo edict is quite correct, and there is absolutely no reason why we should either be ashamed or afraid of the truth.

A LARGE number of newspapers have commented on the fact that Loeb and Leopold, the young Chicago murderers, never had the proper parental training and discipline or they never would have been guilty of the crime for which they now are called upon to suffer. We hear a great deal about the modern method of bringing up children by moral suasion and permitting their natures to run wild, but we are of the opinion that the use of a good hickory switch once in a while helps to mold character better than treating youngsters gently and allowing them to be governed by fantasies. Had Loeb and Leopold been thrashed soundly a few times in their early childhood we would not

now be hearing anything about their glandular abnormalities, and we would not have been treated to the farcical proceedings that occurred in the Chicago court room. "Spare the rod and spoil the child" is just as true now as the day when that dictum was uttered.

The fact that "an all-star program" by men outside of the state has been offered our Association for the coming session to be held in Indianapolis should not be construed as indicating that the plan will be followed in the future. As a matter of fact, the plan is an innovation and has been adopted with several purposes in view, chief of which is the stimulation of attendance and interest in our Association, and incidentally the creation of an incentive for better work by men in our own State. In addition to encouraging a very large attendance from Indiana we also have in mind the encouragement of attendance of physicians from adjoining states and the creation of better feeling and progressiveness of thought that comes from the interchange of friendships and ideas. It is entirely probable that another year will bring a request for Indiana men to furnish the highest type of program that can be presented, and the session of this year, if it comes up to expectations, should stimulate us to greater effort than ever before.

WOMEN and young girls in the small towns as well as in the cities are using tobacco to a greater extent than generally thought to be the case. In fact the growth of the tobacco habit among young girls is truly alarming, and they seemingly haven't the sense to use the weed in moderation. The high strung nervous girl, the one who can least afford to suffer from the effects of tobacco, is the worst offender, and it is common talk among the cigarette fiends of the male sex that they cannot keep pace with their girl friends when it comes down to the number of cigarettes consumed during any day of the week. The point is that doctors who are called upon to treat these young girls for various disturbances should not lose sight of the fact that cigarette smoking is very common among all classes of the young female sex, and no matter how demure and apparently free from vice the young woman may appear, don't overlook the possibility of the young lady being a cigarette fiend, either openly or secretly, with all of its baneful effects upon her impressionable nervous system.

"STATE associations are coming to realize more and more the necessity of exercising great care in the selection of delegates to represent them, and it is a common custom to return a delegate who has rendered conspicuous service for a second or even a third term. It is a matter of record that it requires one term for the new member to become acquainted with the business before the house and

to get his bearings. For the first year he is assigned no committee appointment, and perhaps only a minor one the second year, and it is members of committees who do the work. Therefore, the new member has little more than the privilege of a seat and vote. Our policy of promoting alternates to succeed delegates does not meet the requirements as the alternate does not attend the meetings, except in the absence of the regularly elected delegate. It is a great honor to be selected to represent the association in the House of Delegates, second only to the presidency of the association, but instead of passing the honor along to members of our Association whom we wish to recognize, would it not be well to look particularly to his qualification, his interest in the association, his familiarity with the workings of the organization, and then if he makes good to continue him in office?"—*Minnesota Medicine*, July, 1924.

MUCH has been said concerning the part that the medical profession should play in opposing the growth of chiropractic and its recognition by law. That our opposition should be on the ground of self-interest is unworthy of consideration. Scientific medicine has progressed in spite of quackery, and quackery in one form or another has developed and died at various times ever since the time of Hippocrates. However, the profession owes a duty to the people and the law making bodies to inform them of the danger in placing permission to treat the sick in the hands of the ill trained and ignorant. The enforcement of the law does not and should not lie in the hands of the professional organizations, either county or state. Therefore, as we have pointed out time and again, and as our Committee on Public Policy and Legislation of the Indiana State Medical Association has so effectively stated the matter, the duty of the profession is in pointing out the necessity of requiring education and training for the practice of the healing art if the people are to be protected. You can not make trustworthy physicians by a few weeks of indifferent lessons in spine rubbing, and our legislators should know that logically there is no short course to the attainment of knowledge sufficient to enable one to treat disease intelligently.

OUR comments concerning prohibition enforcement have brought forth some interesting reports covering experiences with prohibition agents. A citizen supposed to have alcoholic beverages in his residence received a telephone message asking him to donate a pint of good whiskey for the relief of sickness, and the request was coupled with the statement that a well-known physician had suggested making the request. The whiskey was donated, and after that the prohibition agent, who was the one who did the telephoning, swore out a warrant and had the citizen's house ransacked for alcoholic beverages, with the result of giving

the man a lot of undue publicity. In another instance a perfectly temperate and law-abiding physician had his automobile searched by prohibition agents and upon the discovery of four ounces of whiskey in his medicine case for medicinal purposes he was arrested promptly for transporting liquor. In another case a stranger, afterwards found to be a prohibition officer, solicited a doctor for relief from what the patient said was a case of stomach colic for which whiskey always gave him relief, and upon being given a drink of whiskey swore out a warrant for the physician's arrest.

All of which we concede is a perfectly rotten state of affairs and does not help the cause of prohibition.

DURING the next few years the undertakers are going to have more business unless we can curb the reckless automobilist and lessen the number of automobile accidents, and, second, in some way prevent the use of so much poisonous "booze." Both problems are hard to solve. Perhaps the reckless automobilist can in a large measure be controlled through the fear of severe punishment brought about by drastic laws. Stopping the traffic in poisonous booze is a more difficult problem to solve. Prohibition agents do not seem to make any headway in stopping bootlegging, and perhaps it is quite true, as has been stated by one prohibition officer, that it would take an army of over a million men to even limit bootlegging, and nothing will stop the practice of selling any kind of poisonous stuff that is pre-Volstead whiskey. Men who never drank in their lives are now patronizing bootleggers, and high school youngsters, who when the Volstead Act was passed, were too young to know anything about drinking are now carrying bottles on their hips when going to high school dances, a thing that never was heard of in pre-Volstead days. The concoctions that they drink now days would warp the inside of a cast iron boiler, but the worst of it is that the more difficult it is to obtain this poison the more anxious the tipplers are to get it. How to stop it is a problem that never will be solved, but in the meantime doctors and undertakers are profiting.

CONCERNING "medical bluff" the veteran and well known editor, John B. Stoll, in the *South Bend Tribune*, quotes an eminent jurist concerning the medical testimony in the Leopold-Loeb trial in Chicago:

"I have carefully listened to the testimony of these physicians on both sides and I never in all my years of experience on the bench heard such bosh. It is a fortunate thing for some people that I am not presiding at this case. Justice Caverly is to be commended for the patience with which he has listened to this mass of medical bluff and nonsense.

"By their antics the professionalists referred

to have lowered themselves immeasurably in the judgment of common-sense people. It is, however, deplorable that the partition wall between nebulous learning and insanity is so frail as to have it go to pieces by force of any jolt, however slight."

The eminent jurist might also have added that most of the members of the medical profession are as much disgusted as is the public. Much of the medical testimony in any case where so-called medical experts are called to testify is bunk for the reason that any one can purchase medical testimony to fit the case and it is a reflection upon the medical profession as a whole even though the great majority of medical men are sincere. The trouble of it is that the conscientious and competent medical experts are not employed unless their testimony fits the particular side of the case employing them.

Health News, published by the New York State Department of Health, says that if the editor's honest opinions were expressed concerning some of the cancer "cures," *Health News* would not be admitted to the mails. The occasion for the outburst is a letter from two physicians under the heading, "Indianapolis Cancer Hospital," who send out a booklet entitled, "Helping Humanity," which latter is illustrated profusely with pictures of clergymen who endorse this particular cure; a leaflet of testimonials from grateful patients; a carriage ticket which provides transportation from the railroad station to the hospital; and an empty envelope addressed to the "eminent" doctors. The letter explains that the treatment consists of a hypodermic injection into the diseased tissue. One injection is all that is necessary as a rule, while another gem in the epistle is the statement that "the blood of a sufferer from cancer will test cancer." The interesting fact concerning the particular letter which forms the basis of the comment is that it was received by the wife of the addressee two days previous to his death.

Of particular interest to us is the fact that this fake cancer hospital is in Indianapolis and that such a monumental fraud has been endorsed by any one, even though we know that clergymen are the most gullible of all when it comes to endorsing patent medicines or fake doctors. Of course, intelligent people are not misled by this quack institution, but the lamentable feature of the whole thing is that the poor and the ignorant, the ones who can least afford to be defrauded and the ones who ought to be protected, are really the ones that suffer. There ought to be some way by which fakes of this kind can be wiped out of existence.

THE Judicial Council of the American Medical Association reported at the Chicago session that the Council condemns the pernicious practice of

fee dividing wherever it may be found, and urges component societies and constituent associations to purge their membership of any who wilfully refuse to desist from the practice of fee dividing, the continuance of which can bring only dishonor and reproach upon the medical profession. So far as its power extends and its jurisdiction reaches, the Judicial Council will undertake to deal with any specific cases that are called to its attention and to render judgment in any cases in which necessary evidence for conviction is put before the Council. The suggestion is made that the matter of fee dividing properly comes under the jurisdiction of the affiliated organizations such as the county and state medical societies, and that it is the duty of these organizations to bring transgressors to account. Whenever a county society is found to enroll so many fee splitting or otherwise unethical members to render it impossible for that society to enforce the ethical standards of the medical profession, then it becomes the duty of the state councilor whose district embraces such society to bring the situation before his state board of councilors and have the charter of such recalcitrant society annulled and in its place have issued a new county society charter in the name of well known ethical physicians of such county in order that a society with ethical standards may be organized and maintained.

The Judicial Council might have added to its report that conviction for fee dividing is a difficult thing to secure, for the obvious reason that most of it is done secretly and those who profit by it are adept at covering up their tracks.

A MEMBER of one of the licensed medical sects not affiliated with the regular medical profession advertises extensively as an ear, nose and throat specialist and lays particular stress upon the statement that he not only does the best and most skillful tonsillectomy of any one in his vicinity but that his operation is entirely bloodless. His unmitigated nerve has not been altered by the well-known fact that several of his tonsillectomy patients have nearly died from hemorrhage and required the services of regular practitioners of medicine to check the hemorrhage, nor does it phase him that many of his patients do have hemorrhage, and some of them are running around with remnants of tonsil remaining after so-called tonsillectomy at his hands. Furthermore, he does not hesitate to tell a patient who has had an eminently successful tonsillectomy at the hands of skilled operators in his own vicinity as well as in distant cities, that the operation has been a bungling job and that pieces of tonsil remain that should be removed. If the patient consents to have further operative work at his hands he makes some sort of a bluff at removing something, and he afterwards glibly tells how he has had to correct the mistakes of others. Even such patients oftentimes go back to worry the first operator,

though occasionally they get no comfort or satisfaction on that proposition. Of course such incidents indicate how contemptible some men can be, and this comment is no reflection upon the members of any particular school of medicine. In fact, we are of the opinion that some regular practitioners of medicine content themselves with no better regard for consistency and fairness to their confreres. Most of us live in glass houses, some with the glass mighty thin, and therefore we should not throw stones.

A CORRESPONDENT writes us with comments upon the editorial note in the August number of *THE JOURNAL* concerning legal expenses in medical defense suits, and offers the suggestion that doctors ought to profit by example when serving in a professional capacity. Attention is called to our tendency to give away advice, service and time. In no other vocation do you find this magnanimous spirit manifested. Lawyers, tradesmen and mechanics do not give away their services, and even the charity organizations have salary lists that put to shame some successful manufacturing and mercantile organizations. As a matter of fact some of the directors and workers in charity organizations are receiving salaries that they could not possibly earn at any other kind of work, and it is not always because they are such fine managers. The churches, clinics and welfare organizations of every kind and description boast of the amount of charity they are doing as valued in dollars and cents, but seldom is any mention made of the medical man who is doing the actual work. Doctors are asked to give real money to charity organizations, and even to subscribe more heavily than their neighbors, while at the same time those organizations expect the doctor to give of his advice, service and time without compensation and seldom with a word of thanks for the same. The groceryman and the clothing merchant may likewise subscribe real money for charity, but if any of their merchandise goes out to the needy it is paid for in real money. Our correspondent ends by saying that we need a hard-boiled business manager to run our affairs when it comes to giving away our services and advice. The cults give away nothing, and they are shrewd enough business men to get fees in advance in the majority of instances. We should be willing to give charity where charity is due, but there is such a thing as riding a free horse to death and, figuratively speaking, that is what is occurring in the lives of a majority of the busy medical men.

HARRY K. THAW, who recently was released from an asylum for the criminally insane, has bought a home in Virginia and already from that locality come tales concerning his peculiar actions and the display of a vicious temper. Money undoubtedly influenced the judgment which sent him

to an asylum instead of the gallows, and undoubtedly money secured his release from that asylum. Medical testimony was foremost in bringing about the judgment.

Two young murderers in Chicago who confessed to being guilty of the crime with which they were charged are trying to escape the gallows through the influence of medical testimony. If these young murderers, possessing millions, escape the gallows it is quite within the range of probability that in the course of a few years they will get free.

Thus do we see the effect of money in perverting justice, but of particular interest to us is the fact that money can buy so-called expert medical testimony to fit either side of any criminal case, and we are of the opinion, as expressed heretofore, that there would not be the wide divergence of opinion among so-called experts in giving testimony in court trials if the experts were employed by the Court, substantial remuneration fixed by the Court, and the witness appearing with the full understanding that he is under no obligation to either the prosecution or defense. For instance, we believe that the testimony of the experts appearing in the Chicago murder case would have been essentially alike had those experts been employed by the Court, but, being employed separately by the prosecution and defense the testimony was largely contradictory.

Under the present rules of procedure in court trials a so-called expert medical witness is employed by either the prosecution or the defense solely and alone because it is known that he will testify in a manner that is entirely favorable to his employers. He would not be employed if it were not known in advance that he would testify in the manner desired. Thus does our court procedure become in a sense of travesty.

THERE are several things which our House of Delegates through reference committees should consider at the Indianapolis session. An expression of opinion or recommendations should consider the following:

A revision of the Workmen's Compensation Act so that an injured employee will have the privilege of selecting a physician of his own choice. There should be a provision in the Act whereby physicians who attend injured employees will be paid for the services up to and including the recovery of the patient.

The fee bill for professional services in compensation cases should meet present conditions. The whole fee bill was a low one anyway, and was formulated at a time when common laborers were satisfied with one dollar per day instead of four to six dollars per day as at present, and when the cost of everything else was in proportion. There also should be some provision concerning compensation whereby some distinction can be

given to the character and quality of services rendered when estimating compensation. For instance, a recognized expert in any specialty should not be expected to have his services classed on the same plane with the ordinary practitioner of medicine.

Contract work by physicians is getting to be a serious menace to the profession. Conditions are deplorable when eight thousand physicians agree to make five dollar examinations for a Health Institute of New York and that organization sells those same services to the public at twenty to twenty-five dollars and reaps a profit of thirty-five per cent a year on the money invested in the enterprise. Likewise the Ford Hospital in Detroit employs doctors on a salary and sells their services to the public at a profit.

The time is ripe for an expression of opinion as to whether we are going to sell our services direct to the consumer or to a middle man. Even the industrial clinics encouraged by insurance companies are discriminating, working a hardship to the younger men in the profession, and help to place the medical profession in a dependent class, and to do away with individualism. Furthermore, the medical profession is being imposed upon and exploited by various organizations, some of them supposedly being benevolent or philanthropic but coming very far from the mark.

Court procedures insofar as medical testimony is concerned, are largely a travesty. Expert medical testimony can be bought, and is therefore in bad repute. The court should select medical experts and provide for their compensation. In that way a medical expert is under no obligation to either prosecution or defense, and with his reputation at stake he will be more inclined to give trustworthy and honest testimony.

The American Medical Association is making a fight for a lowering of the taxation imposed on the members of the medical profession under the narcotic laws and a fairer interpretation of the laws governing exemption in income tax returns. At present the members of the medical profession are imposed upon by the unfair rulings of the Internal Revenue Department. Our Association should back up the A. M. A. in its fight for relief and the Association through its officers should petition our representatives in Congress to make a plea in our behalf.

These are some of the things which very profitably may take the time and attention of the House of Delegates at the Indianapolis session.

DEATHS

THOMAS CROMWELL STUNKARD, M.D., Terre Haute, died June 2, 1924, at the age of sixty-three years. Death was due to an exhaustive and prolonged illness of pernicious anemia. Dr. Stunkard graduated from the Ohio Medical Col-

lege in 1885. He also was a student of West Point, remaining there three years in United States military training. Dr. Stunkard was a member of the Vigo County Medical Society, the Indiana State Medical Association, the American Medical Association and a Fellow of the American College of Surgeons.

W. W. C. BROWN, M.D., of Lafayette, died August 20th, as the result of apoplexy. Dr. Brown was eighty-two years old.

C. M. WARE, M.D., aged eighty years, died August 18th at his home in West Liberty, as the result of cancer. Dr. Ware was not in active practice at the time of his death. Dr. Ware graduated from the Indiana Medical College, Indianapolis, in 1871.

T. J. CLARK, of Letts, died August 17th, at the age of eighty-five years. Dr. Clark graduated from the Eclectic Medical College, Cincinnati, in 1874.

NEWS NOTES AND PERSONALS

Anything in the line of physicians' supplies or equipment may be obtained from advertisers in THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION. Patronize these advertisers, for it means a continuance of their advertising patronage, and the latter means a larger and better Journal for you.

MEMBERS of the Clinton County Medical Society with their families spent the afternoon of August 7th at Gay park, near Delphi.

THE Chicago Eye, Ear, Nose and Throat College is offering a two years' systematic graded course in eye, ear, nose and throat beginning October 1, 1924.

THE Daviess-Martin County Medical Society held a meeting at the Trinity Springs Hotel, August 15th. A paper on "Efficiency in Practical Medicine," was presented.

THE Lake County Medical Society held a picnic at Cedar Lake, August 27th. The doctors, their wives and families enjoyed a day of pleasure. There were no addresses.

DR. WILLIAM V. STANFIELD, of Newtown, and Mrs. Alvah Knapp, of Bloomfield, were married August 16th at Bloomfield. Dr. and Mrs. Stanfield are at home in Newtown.

DR. GEORGE D. MILLER and wife, of Logansport, have recently returned from an eight weeks' tour through the New England States. They also visited Montreal, Canada.

DR. S. MALOUF, of Peru, has recently returned after spending four and a half months in Vienna and Marseilles. Dr. Malouf studied surgery at the

University of Vienna and Hospital Dieu, Marseilles.

THE thirty-fourth annual meeting of the American Electrotherapeutic Association was held at the Hotel Pennsylvania, New York, September 9th to 12th.

THE August meeting of the Fulton County Medical Society was held at the Rochester Country Club. Dr. A. L. Walters, of Indianapolis, presented a paper on "Endocrine Products."

THE Kosciusko County Medical Society held a meeting at Milford, August 19th. Papers were presented by Dr. C. R. Hoy, on "Ingrown Toe-Nails," and P. A. Garber on "Diarrhoeas in Children."

THE Huntington County Medical and Dental Society held its regular monthly meeting at the Idle Hour Inn, August 5th. Dr. Thomas Kennedy, of Indianapolis, presented a paper on "Carcinoma of the Lip."

THE Jasper-Newton County Medical Society held its regular monthly meeting at the Hazelden Country Club, August 29th. Entertainment was provided following an afternoon of golf and a dinner for the members and their wives.

DR. AND MRS. E. A. ROGERS, of Somerset, entertained the members of the Grant County Medical Society July 29th. Following the supper, which was served on the lawn, Dr. L. P. Drayer, of Fort Wayne, presented a paper on "The First Week of Life."

DR. FRANK F. HUTCHINS, of Indianapolis, Colonel in the Medical Reserve Corps of the United States Army, has an interesting article on "Neuropsychic Functions Concerned in Leadership" in the August number of the *Military Surgeon*.

THE City Board of Health of Indianapolis has authorized the employment of four additional physicians and fifteen additional nurses for nutrition work in the schools of that city during the coming school year. Fifty nutrition classes are being planned.

CONTRACTS have been awarded for construction work at the City Hospital, Indianapolis, the work to cost \$171,861. This will include the construction of two additional stories to the nurses' home and the construction of a connecting corridor between units of the hospital.

DR. CHEVALIER JACKSON, of Philadelphia, formerly professor of Laryngology in the Jefferson Hospital, has been elected to the professorship of

the newly created department of Bronchoscopy and Esophagoscopy. Dr. Fielding O. Lewis has been elected to fill the chair of Laryngology left vacant by Dr. Jackson.

THE Kansas City Annual Fall Clinical Conference will be held in Convention Hall, Kansas City, October 13th to 18th, inclusive. In conjunction therewith the annual meetings of the Medical Association of the Southwest and American Child Health Association will be held.

DR. W. A. HOLLIS and son, William, of Hartford City, left September 13th for Montreal, Canada, where Dr. Hollis will attend the American Academy of Ophthalmology. On September 27th they will sail from New York for England and various parts of Europe. They expect to return about the first of the year.

THE thirty-second annual meeting of the Association of Military Surgeons of the United States will be held at San Antonio, Texas, November 13th to 15th. The Air Service Medical Association has accepted the invitation to hold a joint meeting. Invitations have been extended to officers of the military service of thirty-three foreign governments.

THE Thirteenth District Medical Society held its annual meeting at the Country Club, LaPorte, Indiana, September 3rd. Following the election of officers papers were presented by Drs. F. R. Nicholas Carter, South Bend; C. E. Reed, Culver; Charles S. Bosenbury, South Bend; Milo K. Miller, South Bend; M. W. Lyon, Jr., South Bend; R. C. Shanklin, South Bend, and A. C. McDonald, Warsaw. Both luncheon and dinner were had at the Country Club.

ALUMNI of the University Medical College, Kansas City, Missouri, will hold a reunion banquet, Wednesday, October 15, 1924, 6:30 p. m. in the Banquet Room of the Kansas City Athletic Club. During the noon hour of the same day the various classes from 1882 to 1913, inclusive, will hold individual class reunion luncheons. The reunion banquet is a part of the program of the Kansas City Clinical Society, which will convene in Conventional Hall, Kansas City, Missouri, October 13 to 18, 1924.

A NATION-WIDE movement for improved conditions in maternal welfare is being made through the efforts of a joint committee representing the American Gynecological Society, the American Child Health Association, and the American Association of Obstetricians, Gynecologists, and Abdominal Surgeons. An appeal is made to the secretaries of state medical associations to enlist the co-operation of members to stress the subject of obstetrics in the programs of their meetings and

try to have more papers and discussions on the topics vital to this branch of work.

THE Staff of St. Anthony's Hospital, Terre Haute, has passed appropriate resolutions concerning the death of one of its members, Dr. Thomas Cromwell Stunkard, who died June 2, 1924, following an exhaustive and prolonged illness of pernicious anemia. In addition to having been chief of the hospital staff of St. Anthony's Hospital, Dr. Stunkard was a member of the Vigo County Medical Society, the Indiana State Medical Association, a past president of the Aesculapian Society and a Fellow of the American College of Surgeons. Dr. Stunkard was well known in Indianapolis where he was in command of base hospital at Fort Harrison for a considerable time during the World War.

At a recent meeting of the Board of Trustees, the following changes were made in the faculty of the Indiana University School of Medicine:

Dr. William F. Hughes, now associate professor of ophthalmology, to clinical professor of ophthalmology; Sidney J. Hatfield, now associate professor of gynecology, to clinical professor of gynecology; Dr. Bernard J. Larkin, assistant professor of gynecology, to clinical professor of gynecology; Dr. George S. Row, now associate in ophthalmology, to assistant professor in ophthalmology, Dr. Gustavus B. Jackson, associate in obstetrics; Dr. L. A. Ensminger, associate in surgery; Dr. C. E. Nafe, associate in surgery.

The following doctors now assistants were made associates: Carl Habich in gynecology, William D. Little in surgery, Robert M. Moore in medicine, Ross C. Ottinger in gynecology, James O. Ritchie in medicine, Carl I. Rudicell in medicine, Frank C. Walker in gynecology and James A. Wynn in medicine.

The following physicians were appointed with the title of assistant: D. S. Adams in rhinology, otology and laryngology, Louis D. Belden in surgery, George W. Bowman in dermatology, A. E. Guedel in surgery, R. R. Hippinsteel in pediatrics, Foster Hudson in obstetrics, R. M. Koons in surgery, Roy V. Myers in gynecology, Wynn S. Owen in surgery, Dudley Pfaff in surgery and D. L. Smith in obstetrics.

THE Tri-State District Medical Association will hold its annual session in Milwaukee, October 27th to 31st, inclusive. The session has been called the Interstate Postgraduate Assembly of America. The general headquarters for all scientific sessions or exhibits will be at the gymnasium building, Marquette University, which contains a special built amphitheater, perfect in acoustics, comforts and conveniences. The clinics will be in charge of some of the most noted physicians and surgeons in America, practically all of whom are teachers in leading medical schools of the United

States. The program lists 108 essayists and clinic leaders. A number of distinguished foreign guests also will be present to take part in the program. Among these are the following: Professor Theodore Tuffier, Paris; Mr. A. J. Walton, London; Dr. John Hunter, Sydney, Australia; Dr. N. D. Royle, Sydney, Australia; R. Hamilton Russell, Melbourne, Australia; Dr. Carrick H. Robertson, Auckland, New Zealand; Dr. Ralph Worrall, Sydney, Australia; Dr. H. B. Devine, Melbourne, Australia; Dr. J. S. Elliott, Wellington, New Zealand.

Social features consist of a theater party on one evening and a banquet on another evening at which members of the profession and guests, including prominent citizens and members of civic bodies of Milwaukee will be present. The addresses scheduled are by the following: Monsieur J. Jusserand, of Washington, D. C.; Sir Arthur William Currie, of Montreal, Canada; Dr. Nicholas Murray Butler, New York City; Professor Theodore Tuffier, Paris; Rear Admiral Edward R. Stitt, Washington, D. C., and Major-General Merriette W. Ireland, of Washington, D. C.

In addition to the articles already enumerated, the following have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association:

Coleman and Bell Company:

Gentian Violet Improved Medicinal.

Hynson, Westcott and Dunning:

Meroxyl.

Meroxyl Tablets-H. W. and D.

Jensen-Salsbery Laboratories:

Rabies Vaccine (Human) Phenol Killed.

Eli Lilly and Company:

Oridine.

Oridine Tablets.

H. A. Metz Laboratories:

Silver-Salvarsan, 0.6 Gm. Ampules.

National Aniline and Chemical Company:

Gentian Violet Medicinal-"National."

Parke, Davis and Company:

Diphtheria Toxin Antitoxin Mixture, 0.1 L+—P. D. and Co.

E. R. Squibb and Sons:

Antistreptococcic Serum-Squibb, packages one 10 Cc. syringe.

Antistreptococcic Serum-Squibb, packages one 50 Cc. vial.

Antistreptococcic Serum Rheumatic-Squibb, packages one 20 Cc. vial.

Antistreptococcic Serum Rheumatic-Squibb, packages one 50 Cc. vial.

Diphtheria Toxin Antitoxin Mixture (New Formula), packages thirty 1 Cc. ampules.

Sulpharsphenamine-Squibb, 1 Gm. Ampules.

Sulpharsphenamine-Squibb, 3 Gm. Ampules.

Frederick Stearns and Company:

Insulin-Stearns Quadruple Strength.

Wilson Laboratories:

Ampules Pituitary Solution-Wilson, 0.5 Cc.

Nonproprietary Articles:

Thiosinamine.

Gentian Violet Medicinal.

ABSTRACTS

IS PNEUMONIA INCREASING?

The lungs have long been a favorite point of attack for our bacterial enemies. The diseases of the lung account for a large proportion of the deaths in every community. Woods Hutchinson has remarked that this has long been a puzzle, since, foul as is the air or irritating as is the gas or dust that we may breathe into our lungs, they cannot compare for a moment with the awful concoctions, in the shape of food, that are loaded into our stomachs. Even from the point of view of infections, he adds, food is at least as likely to be contaminated with disease germs as air is. Yet there is no disease or combination of diseases of the whole food canal that has half the mortality of consumption alone, in civilized communities, while in the Orient the pneumonic form of the plague is a greater scourge than cholera.

There was a time, not long ago, when to "die of old age" was almost synonymous with death from pneumonia. The treatment was largely symptomatic; careful attention was bestowed on the patient, while the disease was left to take care of itself. Ten years ago, one might read that, "though pneumonia is one of our most serious and most fatal of diseases, yet it is one over whose cause, spread and cure we are obtaining greater and greater control every day, and which certainly should, within the next decade, yield to our attack, as tuberculosis and typhoid are already beginning to do." Such hopes followed the discovery of the microbial causative agent and the consequent better understanding of the pathogenesis of pneumonia infections. Yet the dire experiences of the influenza year 1918 are still vividly present in the memories of all except the youngest practitioners; and the specter of an unconquerable enemy still haunts them.

A critical review of the status of pneumonia presents great difficulties. It is not easy to gather dependable statistics for a disease, or group of respiratory affections, regarding which the differential diagnosis is often uncertain or disputed. Nevertheless, the situation is not entirely discouraging in the light of the data compiled by Tomanek and Wilson of the Harvard School of Public Health. From a study of a reasonably uniform population over a considerable period in ten original registration states, they infer that the mortality as reported for all respiratory diseases, for lobar and undefined pneumonia, and for bronchitis is decreasing with a statistically significant trend, whereas broncho-pneumonia is increasing and pneumonia of all forms is holding steady. In view, however, of the behavior of lobar and undefined pneumonia individually, the difficulties of diagnosis, the many diseases for which pneumonia is the terminal phase and others (particularly the heart group) that may complicate and terminate pneumonia; taking further into account the fact that the period 1900-1920 was one of rising prices with rising standards of living and that the economic situation may not always be so favorable, and remembering that the year 1918 undoubtedly had a considerable excess of real pneumonia, all that Tomanek and Wilson think it safe at present to infer is that pneumonia is neither increasing nor decreasing, but that the human organism is reasonably in equilibrium with its environment with respect to this disease. The further possible mastery of the latter through the extensive use of specific antitoxic serums foreshadows the effective control of a deadly enemy.—*Jour. A. M. A.*, July 19, 1924.

PRESENCE OF FREE HYDROCHLORIC ACID IN GASTRIC CONTENTS IN CARCINOMA OF STOMACH

Julius Friedenwald and William J. Bryan, Baltimore (*Journal A. M. A.*, July 26, 1924), collected the analyses of the gastric contents, in 100 cases of gastric carcinoma in all stages of the disease. The location of the growth could be determined definitely in only forty-two of the 100 cases by means of operation or necropsy. As far as could be ascertained, the pylorus was involved in fifty-six instances; the cardiac area in seven; the body of the stomach, not including the orifices, in twenty-one, and general involvement was present in sixteen. Fractional analyses were made in all instances, and the quantity of fasting contents observed. The quantity of fasting gastric secretion obtained varied in this condition according to whether there was or was not a pyloric obstruction at hand. In thirty-nine of the 100 cases, obstruction was noted to a greater or less degree. The results obtained by means of the fractional method were compared in each instance with those obtained by the Ewald test breakfast; the normal degree of free hydrochloric acid was estimated to be from 20 to 40; achlorhydria, 0; hypochlorhydria, from 0 to 20, and hyperchlorhydria, above 40. Of the 100 cases, fifty-two per cent showed an achlorhydria, sixteen per cent hypochlorhydria, twenty-six per cent normal acidity and six per cent hyperchlorhydria. When these figures are compared with those obtained by means of an Ewald test breakfast, it becomes evident that, in a large number of instances in which acidity is noted by means of the later method of examination, this finding is misleading, since free hydrochloric acid may still be present at some period during digestion, when the gastric secretion is examined by the fractional method. Guided by the findings of the Ewald test breakfast alone, the percentage of achlorhydrias in this series would have been seventy-nine instead of fifty-two. As hardly more than half the cases of gastric carcinoma present an achlorhydria, the authors urge that too much importance should not be attached to this finding as a necessary sign of this disease.

THE COMPARATIVE VALUE OF ETHYLENE AS AN ANESTHETIC

John S. Lundy, Rochester, Minn. (*Journal A. M. A.*, Aug. 2, 1924), stresses the fact that there is, as yet, no one anesthetic agent that is uniformly satisfactory in every instance; however, ethylene is a valuable addition to the present list. It neither entirely supplants nitrous oxid and ether, nor do they, in turn, suffice in the fulfillment of all requirements of anesthesia. The method recently employed at the Mayo Clinic in the management of obstetric cases illustrates how ethylene may be blended with other anesthetic agents to produce the desired effect at the proper moment; for example, during the part of labor when the cervix is being dilated, the action of nitrous oxid and oxygen is more satisfactory than that of other agents. As the head comes to rest on the perineum, and the pains are reinforced by voluntary effort, a small amount of ethylene may be added to the nitrous oxid with good effect. Analgesia is thus produced without cyanosis. As labor progresses and bulging occurs, the anesthetic is shifted to ethylene and oxygen only, with about 15 per cent oxygen in the mixture, which suffices for this period. A rather concentrated mixture of ethylene and oxygen is used as the head is delivered; about 5 to 10 per cent is oxygen. Real anesthesia can be produced quickly with this mixture. Pains can be terminated rapidly, and extensive lacerations prevented. Oxygen may be given for a few moments after the birth of the head. The baby cries almost immediately on delivery. Respiration does not begin too soon. If episiotomy has been performed, anesthesia may be recommended and the repair accomplished without difficulty. Occasionally the pains cannot be relieved immediately with ethylene and oxygen alone, but all will yield to a combination of ethylene, ether and oxygen. Very little ether is used in such cases.

THE DICK TEST IN NORMAL PERSONS AND IN ACUTE AND CONVALESCENT CASES OF SCARLET FEVER

Abraham Zingher, New York (*Journal A. M. A.*, Aug. 9, 1924), reviews his etiologic relationship of streptococcus hemolyticus to scarlet fever; discusses the modern conception of scarlet fever, and then gives a very full description of the technic of the Dick test, which, briefly, consists of the intracutaneous injection of from 0.1 to 0.2 c.c. of a dilution of the soluble toxic filtrate obtained from a culture of the specific hemolytic streptococcus. There is a positive, a negative, a negative-pseudoreaction and a positive-combined reaction. The positive reaction begins to appear in from four to six hours, and reaches its maximum in size and intensity within twenty-four hours after the injection. There is a local area of redness, varying in size from a 5 cent to a 25 cent piece. It is as a rule circumscribed, although its margins may shade off into the surrounding skin. There may be varying degrees of redness, from a faint pink to an intense red. Local induration may or may not be present at the site of the reaction. At the end of twenty-four hours the positive Dick reaction corresponds in appearance to the positive Schick reaction at its height on the fourth day. The local effect of the scarlet fever toxin, while more rapid in its appearance in the positive Dick reaction, is not as intense or as lasting in character as the effect of diphtheria toxin in the positive Schick reaction. At the end of forty-eight hours many of the positive Dick reactions have faded considerably, and on the sixth or seventh day only the more pronounced positive reactions will show a slight pigmentation and possibly a superficial fine scaling. The local action of the scarlet fever toxin is primarily on the capillary blood vessels. This explains the rapidity in appearance and early maximum development as well as the more transient character of the positive Dick reaction. In positive Dick reactions, as in positive Schick reactions, the control test on the left forearm made with heated toxin is negative, the skin at the site of the test remaining unchanged. Positive Dick reactors are susceptible to scarlet fever, as far as not having antitoxin is concerned. Zingher's experience up to the present time, has shown that none of the negative reactors have developed scarlet fever, while seven positive reactors have developed the disease. During convalescence, these six persons gave a negative Dick reaction. Positive Dick reactors need not necessarily, however, develop scarlet fever when exposed to the disease. The negative reaction shows no change at the site of the test or control. These persons are immune to scarlet fever. The blood serum of negative Dick reactors has certain specific properties that are also noted with convalescents' scarlet fever serum. It will neutralize the toxin when added to it in certain proportions, and will cause a blanching of the rash when injected intradermally into a patient with an early scarlet fever rash. The latter is called the Schultz-Charlton phenomenon. The negative-pseudo reaction shows an area of redness, with or without infiltration, which is similar in size and appearance at the site of the test and of the control. It fades somewhat more rapidly than the positive reaction, but always equally on the two forearms. The pseudo-reaction may be due to a hypersensitiveness to the autolyzed protein of hemolytic streptococcus or to the other protein constituents of the test fluid. The pseudoreactors are immune to scarlet fever. Zingher details his results with the Dick test in normal persons, and in acute and convalescent cases of scarlet fever. The Dick test is a reliable index of immunity and susceptibility to scarlet fever. In conjunction with active immunization with scarlet fever toxin, it will help in solving the problem of the control of scarlet fever. It serves to indicate the susceptible persons who need immediate passive immunization with scarlet fever antitoxin. The Dick test helps in the diagnosis of doubtful cases of scarlet fever. Other applications of the skin test consist in studying the specific character of the toxin produced by different strains of hemolytic streptococcus. Such studies would be of value in the diagnosis of doubtful cases of

scarlet fever; in the classification of clinical conditions caused by the hemolytic streptococcus but not associated with scarlatiniform rashes, and in the identification of normal and persistent carriers of the specific streptococcus of scarlet fever. A new impulse will be given by the application of the test to the study of scarlet fever to determine whether the disease includes a single clinical entity or whether, as was long suspected, the clinical conception of scarlet fever includes a variety of diseases with similar symptoms, but not necessarily associated with the presence of the specific strains of the hemolytic streptococcus of scarlet fever. Scarlet fever is a combined toxic and bacterial infection, caused by a specific hemolytic streptococcus. The immunity following an attack of scarlet fever is antitoxic and not to any extent antibacterial. This is shown by the fact that convalescent patients, who give a negative Dick reaction, may develop secondary septic complications produced by the specific streptococcus. The diluted toxin keeps well, and can be distributed in this form ready for the test. The results with the Dick test in normal persons indicate that the percentage of susceptible persons by age groups and by social status resembles closely the similar percentage of persons susceptible to diphtheria noted with the Schick test. The application of the Dick test in the early stage of scarlet fever showed a positive reaction in each one of the 141 patients tested. The reactions rapidly became less strongly positive, and were found negative from the seventh to the tenth day of the disease. Of 170 scarlet fever patients tested during convalescence, 158, or 93 per cent, gave a negative Dick reaction. Active immunization with scarlet fever toxin is a safe procedure, and is not to any extent associated with the development of constitutional symptoms, if the dose of the toxin is gradually increased. The amount is most conveniently increased by the skin test dose, the quantity injected representing 100, 250 and 500 skin test doses for children under 12 years, and 100, 250 and 500 skin test doses for persons over 12 years of age. The injections are given one week apart. The immunity results as shown by the Dick retest seem to be encouraging. Purification of the toxin by the sodium chlorid and acetic acid precipitation method gives a preparation that is better for purposes of the test and active immunization, as it eliminates to a large extent the proteins causing the pseudo element in the Dick test and the local reactions as well as the sensitization after the immunizing injections.

EXPERIMENTAL STUDIES ON THE ETIOLOGY OF CHRONIC ULCERATIVE COLITIS

Twenty-two patients with chronic ulcerative colitis, observed in the Mayo Clinic, were studied by Jacob A. Barga, Rochester, Minn. (*Journal A. M. A.*, Aug. 2, 1924), with reference to causation, and experimental work was done on rabbits. In smears from the lesions of patients, two organisms were seen in predominance, a gram-positive diplococcus and a gram-negative bacillus. In dextrose brain broth cultures, the gram-positive diplococcus grew in predominance in the majority of patients; often this also was true on the blood-agar plates. On the lactose endo-agar plates, a gram-negative bacillus, in all essentials like a colon bacillus, grew. In from twenty-four hours to several days, the animals developed a violent diarrhea, often with blood and mucus in the stools. They lost weight, and wasted rapidly. At necropsy, after the animals had died or had been killed, gross lesions were found primarily in the colon. Similar bacterial flora have been found in every patient with active ulcerative colitis. By the intravenous injection of pure cultures of gram-positive diplococci obtained from the lesions of patients, or, more often, mixed cultures in which the diplococci were present in predominating numbers, lesion essentially like those in patients have been produced in rabbits. Organisms have been reisolated from the heart blood, the lymph glands or the spleen of rabbits, and similar lesions reproduced by several successive animal passages. The lesions produced in rabbits resemble those in persons, in primary localization, progression and extent.

REGENERATION OF THE PANCREAS FROM THE PANCREATIC DUCT

N. F. Fisher, Dallas, Texas (*Journal A. M. A.*, August 16, 1924), has studied the growth of the new pancreas tissue from the pancreas duct remnants. The experiments were suggested by the regeneration of pancreas tissue from the pancreatic duct stump in totally depancreatized dogs kept alive with insulin. More than 0.5 gm. of normal pancreas tissue regenerated in the course of eight months, at the end of which time the animal was killed. For the transplantation experiments, pieces of pancreatic duct about one-fourth inch in length were taken from pups several days old and transferred to hosts ten weeks of age. The transplanted tissue was allowed to remain from forty to sixty days and was then removed and submitted to microscopic examination. It is very evident that there is a great tendency toward the proliferation of new duct tissue. In almost every case, when the pancreas was removed from the base of the duct, new ducts were formed to establish functional union between the pancreas and the duodenum. This formation of new ducts confirms and extends the results of previous workers with regard to the capacity of the pancreatic ducts to form new duct tissue. In two cases a new duct grew from the base of the old duct, away from the pancreas remnant, and at its end supported normal pancreas tissue. The regenerated pancreas was more than two inches removed from the pancreas tissue left at the time of operation. Pancreatic duct tissue transplanted to other parts of the body of the same animal or other animals of the same species will proliferate new duct tissue.

THE OVERWEIGHT CHILD

An analysis made by Borden S. Veeder, St. Louis (*Journal A. M. A.*, August 16, 1924), of overweight children shows that they fall into two distinct groups: First, a group with an irregular disposition of the adipose tissue, together with other physical abnormalities which are indicative of endocrine disturbances; and, secondly, a group which might be termed ordinary obesity, in which there is a generalized distribution of the excess fat tissue and there are no other abnormalities that might be considered as evidence of endocrine disorder. In the group of nonendocrine obesity, a study of the parents showed that in every instance either one or both parents were overweight. It is Veeder's impression, from studying the condition of living in these families, that there is an inherited tendency in these children. In the second group, one boy presented fairly definite signs of hypergonad secretion, and one a quite typical Froelich syndrome. The others fell into a group with definite pelvic girdle adiposity, considered by some as of pituitary origin and by others as due to lesions of some other of the endocrine glands. In none of the endocrine cases was there evidence of an inherited tendency to obesity. Veeder considers the differentiation into the endocrine and non-endocrine groups of importance: (1) Because of the statement of some pediatricians that endocrine disorder as a cause of obesity is rare, a statement he does not regard as correct; (2) because of the statement of some endocrine enthusiasts that most, if not all, cases of obesity are due to glandular disturbance, a theory for which there is no valid proof or evidence, and (3) because of the therapeutic and prognostic differences. From the school standpoint, overweight children have been a problem for two reasons: Because of their inability to fit in with the regular play and athletic program and because of their marked tendency to injury. The overweight child is more difficult to manage than the underweight. Part of the explanation for this is the lack or absence of physical defects—excepting the endocrine disorders—among the overweight children, the correction of which aids so materially in the management of undernutrition. Therapy or corrective measures, therefore, are necessarily limited almost entirely to dietetic restrictions and to increased muscular exercise. The question of the limitation of diet raises a very nice theoretical problem as well as a practical one. How far can the diet of a growing develop-

ing child be cut down without the danger of injury? The plan followed by Veeder has been to take off a few pounds by a rigid restricted diet for a week or two and then hold the weight at this level for a long time, always meeting the protein requirements and allowing as many additional calories in fat and carbohydrates as could be utilized without any weight being taken on. From a practical standpoint, this plan has not always been as successful as had been hoped. Despite the failures, Veeder's belief is that his method is right; that is, not to attempt a marked reduction of the weight, but to hold the weight and let the child grow into it, so to speak. The chief reason for intervention lies in the failure of the child to adjust himself properly to his environment.

TRUTH ABOUT MEDICINES

NEW AND NONOFFICIAL REMEDIES

HOLOCAINE OINTMENT.—M. E. S. Co.—Composed of holocaine (see New and Nonofficial Remedies, 1924, p. 35) 1 per cent, water 1 per cent, wool fat and petrolatum 98 per cent. Put up in collapsible tubes for application to the eye. Manhattan Eye Salve Co., Louisville, Ky. (*Jour. A. M. A.*, August 2, 1924, p. 357).

SILVER-SALVARSAN, 0.6 GM. AMPULES.—Each ampule contains silver-salvarsan (see New and Nonofficial Remedies, 1924, p. 54) 0.6 Gm. H. A. Metz Laboratories, New York.

DIPHTHERIA TOXIN ANTITOXIN MIXTURE 0.1 L+.—A diphtheria toxin-antitoxin mixture (see New and Nonofficial Remedies, 1924, p. 299), each Cc. representing 0.1 L+ dose, of diphtheria toxin, neutralized with the required amount of antitoxin. It is marketed in packages of three bulbs, each containing 1 Cc.; also in vials containing 20 Cc. Parke, Davis and Co., Detroit. (*Jour. A. M. A.*, August 16, 1924, p. 508).

PROPAGANDA FOR REFORM

CAMPHOR IN OIL IN HEART FAILURE.—Marvin and Soifer have studied the effects of camphor in oil as a cardiac stimulant. They failed to secure evidence of any action on heart rate, respiration, blood pressure, vital capacity or the general clinical condition in which digitalis is frequently promptly effective. Henceforth, the burden of proof that camphor in oil has a rational place in the treatment of congestive heart failure rests with its advocates. All others may well hesitate to place their trust in a drug that seems to have given more promises than therapeutic performances. (*Jour. A. M. A.*, August 2, 1924, p. 362).

MORE MISBRANDED NOSTRUMS.—The following products have been the subject of prosecution by the federal authorities charged with the enforcement of the Food and Drugs Act: DeWitt's Kidney and Bladder Pills (E. C. DeWitt and Co.), consisting essentially of methylene blue, potassium nitrate and plant material, including a volatile oil such as juniper oil. Foster's Backache Kidney Pills (Porto Rico Drug Co.), consisting of potassium nitrate, rosin, fenugreek, uva ursi and an essential oil such as juniper. Glycofostina (Henry S. Wampole Co., Baltimore), consisting essentially of strychnin sulphate, sodium calcium and potassium glycerophosphate, alcohol and water. (*Jour. A. M. A.*, August 2, 1924, p. 375).

RECTUM ADMINISTRATION OF DIGITALIS.—Digitalis is absorbed rapidly and fairly uniformly from the alimentary tract of man, although some substances in the digitalis group, notably strophanthus products, are unsuited for oral administration. However, nausea, vomiting or surgical operations may sometimes interfere with the use of digitalis by mouth. For such emergencies digitalis may be satisfactorily administered by rectum. In many patients with auricular fibrillation, the results have been rapid and beneficial. Rectal digitalis therapy is not intended to supplant the well established oral method of administration, but rather to be used as an emergency

measure when the customary mode of introduction is not feasible. (*Jour. A. M. A.*, August 9, 1924, p. 446).

SUN AND MOON OIL AND OINTMENT.—Alfred W. Lowrie of Hartford, Conn., an alleged divine healer, mixes religion with his quackery. In a publication by him he is said to have died once, and while dead was ushered into the presence of the Supreme Being. While in heaven, Lowrie was presented with the "key to knowledge" to be used by him when he returned to earth. After Lowrie's visit to heaven, he seems to have started making what he is pleased to call "Sun and Moon Sacred Ointment" and "Sun and Moon Sacred Anointing Oil." The ointment is claimed to contain "vibrations of life from the radio-activity of electricity, magnetism, electrons and atoms." The ointment is to be used externally and internally for a variety of ailments. The A. M. A. Chemical Laboratory found the composition of the ointment to be essentially: Petrolatum, 75.50 per cent; saponifiable fat, 17.20 per cent; methyl salicylate, 4.00 per cent; "dirt," 0.15 per cent; oil of sassafras, water and undetermined, 3.15 per cent. The "sacred oil" is for external and internal use. It was claimed to have no equal for tired and sore feet, rheumatism, neuritis, lameness, hardening of the arteries and nerves, broken bones, skin diseases and other conditions. The A. M. A. Chemical Laboratory found the oil to consist essentially of fixed oil (probably olive oil), 87 per cent; methyl salicylate, 5 per cent; oil of sassafras, 1 per cent; alcohol, 2 per cent; water and vegetable extractive, 5 per cent. (*Jour. A. M. A.*, August 9, 1924, p. 458).

INHALATION OF "CARBONA."—A periodic drinker used the cleaning fluid "Carbona" to produce unconsciousness when inhaled. Carbona contains carbon tetrachlorid as its essential constituent; carbon disulphid being generally present also. Carbon tetrachlorid has been tried as a general anesthetic and found unsatisfactory. The carbon disulphid greatly increases its toxicity when inhaled. (*Jour. A. M. A.*, August 9, 1924, p. 46).

THE THERAPEUTIC USE OF DIGITALIS.—The Council on Pharmacy and Chemistry has long held that digitalis effects can be obtained satisfactorily in most instances by the oral administration of digitalis itself, the tincture or the infusion, and that the intravenous administration of digitalis preparations is rarely necessary. However, investigation indicates that digitalis preparations are administered intravenously far more frequently than seems to be demanded. Because of the importance of digitalis therapy, the Council decided to appoint a committee composed of men who have made a study of questions concerning the administration of digitalis, and to request this committee to prepare a report for publication which would set forth concisely the limitations of digitalis therapy and the methods of obtaining digitalis effects. At the request of the Council, Drs. G. Canby Robinson, Paul D. White, Cary Eggleston and Robert A. Hatcher prepared a report. This report brings out the indications for the use of digitalis, the limitations of the drug, its dosage and method of administration. It discusses at considerable length the conditions where the intravenous and intramuscular administration of digitalis may be called for and when the oral administration will be found satisfactory. The report concludes with the statement that the oral administration of digitalis in the form of the standardized powdered leaf, infusion or tincture, meets every requirement of digitalis therapy, with the exception of those relatively infrequent cases in which immediate relief is imperatively demanded, or when nausea or vomiting precluded the oral method, and outlines the intravenous, intramuscular or rectal administration of digitalis bodies when the threatening condition of the patient demands immediate relief. (*Jour. A. M. A.*, August 16, 1924, p. 504).

YADIL.—This is an international fake of British origin. The advertising campaign for Yadil reminds one of Sanatogen in those palmy days when the public could be persuaded to pay a dollar for a few cents worth of cottage cheese. As Sanatogen was the apotheosis of cottage cheese, so Yadil is supposed to be a glorified and esoteric form of

garlic. A part of the Yadil advertising campaign is an alleged history of garlic as a curative agent. Just what the theory of its use may be is not clear. Possibly the basic idea is that no self-respecting germ will want to tarry in an organism saturated with garlic. Yadil is put on the market by Clement and Johnson Bros. of London. The concern has a subsidiary company for its publicity, known as the Yadil Press, Limited (formerly called "Quality Press, Limited"). The American agents are E. Fougere and Co., New York. In the British Isles, newspapers and magazines are carrying full page and middle page spreads for Yadil for tuberculosis, for cancer, for scarlet fever, for gonorrhea, and for what-have-you. The British newspaper, The Daily Mail, which has refused Yadil advertising, published in its issue of July 22 an exposure of Yadil written by Sir William J. Pope, senior professor of chemistry in the University of Cambridge. Whereas the manufacturers claim that Yadil is "Trimethanal Allylic Carbide," and declare that it is of entirely harmless vegetable origin, its active principle being natural essential oil of garlic, Professor Pope, after an analysis of Yadil, stated that (1) it is not "Trimethanal Allylic Carbide," (2) that it consists of about 1 per cent formaldehyd, 4 per cent of glycerin, 95 per cent of water and a smell. According to Professor Pope the smell can be closely imitated by adding to one hundred tons of water one ounce of oil of garlic. He also discusses the testimonials both from physicians and from laymen and shows the utter worthlessness of the testimony. In another article in The Daily Mail, Professor W. E. Dixon of the University of Cambridge emphasizes that the basic drug in Yadil is an irritant poison with cumulative effects, and characterizes some of the medical evidence for Yadil as nonsense. (*Jour. A. M. A.*, August 16, 1924, p. 550).

ANAPHYLACTOID PHENOMENA AND MODERN THERAPY.—Anaphylaxis is that state of hypersusceptibility to a given substance which has been induced by a previous injection of the same substance. The reaction is limited to substances of a protein nature. A considerable variety of chemically unrelated substances may produce "anaphylactoid" symptoms after intravenous injection by virtue of their causing occlusion of the pulmonary capillaries by thrombosis or by agglutinated corpuscles or platelets. Some of the substances which may produce anaphylactoid phenomena have been widely proposed for intravenous therapy, including a variety of "colloidal" solutions of iron, mercury, arsenic, antimony and protein, as well as extracts of animal tissues. In consideration of the possibility of anaphylactoid reactions being induced by such substances, it is well to reiterate that there seems to be little, if any, justification for the intravenous administration of such agents as hexamethylenamin, sodium iodid, and sodium salicylate, because their systemic effects are readily obtained by oral administration. (*Jour. A. M. A.*, August 23, 1924, p. 614).

MORE MISBRANDED NOSTRUMS.—The following products have been the subject of prosecution by the federal authorities charged with the enforcement of the Food and Drugs Act: Doane's Kidney Pills (Foster-Milburn Co.), consisting essentially of potassium nitrate, ground leaves of uva ursi, a trace of volatile oil such as turpentine or juniper oil, a resin, starch, sugar and talc. (For years the advertising of "Doane's Kidney Pills" has long been an offense against the public health. Its advertising methods have been such as to frighten the public into the belief that pain or soreness in the lumbar region is indicative of kidney disease.) Lafayette Headache Powders (Lafayette Co.), consisting essentially of acetanilid, caffeine, sodium bicarbonate and aromatics, including cinnamon and ginger. Grogan Mineral Water (Grogan Wells and Boone Institute of Massage), containing large numbers of bacteria and gas-forming organisms, indicating that the water was polluted. (*Jour. A. M. A.*, August 23, 1924, p. 631).

SCARLET FEVER TOXIN.—Scarlet fever toxin has been furnished by the John McCormick Institute to some city and state health departments. Physicians inquiring for

(Continued on Adv. Page xx)



In Surgical Sutures

SATISFACTION lies in strength, sterility and uniformity of absorption, features to be attained only when the smooth or detached side of selected sheep gut is employed. Right now the price of raw material is very high. Some manufacturers are evening up things by using the mesenteric as well as the smooth portion of the intestine. None of the cardinal qualities can be guaranteed when the rough side is employed. This is obvious to the man who has studied the manufacture of catgut.

In the Armour Laboratory nothing but the smooth, straight side of the gut is put into surgical ligatures. This material is sterilized chemically and thermally at opportune stages and finally the finished suture is, after being placed in tubes, subjected to a degree of heat that means death to all spores and organisms.

The Armour Non-boilable Catgut Ligatures are as flexible as a silk cord, and are of full strength and absolute sterility.

Specify Armour's Non-boilable Catgut Ligatures. You will be satisfied.

PITUITARY LIQUID (Armour)

the Premier Product of the kind, 1 c. c. ampoules—surgical, $\frac{1}{2}$ c. c. ampoules—obstetrical.

SUPRARENALIN SOLUTION 1:1000

Astringent and hemostatic.
Stable and non-irritating.

Headquarters for the Endocrines
and other Organotherapeutics

ARMOUR AND COMPANY
CHICAGO

WALLACE-SOMERVILLE SANITARIUM



Succeeding the Pettey & Wallace Sanitarium

MEMPHIS, TENN.

WALTER R. WALLACE, M.D.
WILLIAM G. SOMERVILLE, M.D.

FOR THE TREATMENT OF

**DRUG ADDICTIONS, ALCOHOLISM
MENTAL AND NERVOUS DISEASES**

Located in the Eastern suburbs of the city.
Sixteen acres of beautiful grounds.
All equipment for care of patients admitted.

Louisville Neuropathic Sanatorium

INCORPORATED

1412 South Sixth Street, Louisville, Kentucky

An ethical institution with modern equipment for the care and treatment of Mental and Nervous Diseases. Situated in residence portion of the city, yet quiet and retired. Rates furnished upon request.

W. E. GARDNER, A.B., M.D.

Medical Director

W. E. RENDER, M.D.

Resident Physician



TRUTH ABOUT MEDICINES

(Continued from Page 330)

this material should apply to their local health department. There is an increasing demand for standardized toxin that the Drs. Dick believe should be met; however, because the toxin must be standardized on human beings, the commercial companies are going to find it difficult to standardize accurately. (*Jour. A. M. A.*, August 30, 1924, p. 705).

CHLORIN INHALATIONS IN RESPIRATORY AFFECTIONS.—Numerous devices have been advanced for the inhalation of chlorin gas. Several municipal health departments have installed treatment chambers where such devices are undergoing extensive experimentation. It is impossible to say if the virtues of the method has been demonstrated, and it must be considered in an experimental stage. The indications are that chlorin inhalations will not produce bacterial sterilization of the mucous membrane, although they seem to reduce the number of bacteria found on the tissues. The duration of an adequate treatment, the concentration of gas to be used, the methods by which the gas is to be produced, and similar factors are still the subject of experimentation. (*Jour. A. M. A.*, August 30, 1924, p. 691).

FATAL ANAPHYLAXIS FROM HEMOSTATIC PREPARATIONS.—Recently a death was reported which was caused by the injection of a hemostatic preparation. It was discovered afterwards that the patient was a sufferer from asthma and that the attacks were elicited even by the mere approach of a horse. Because of the importance of determining the anaphylactic possibilities of the various blood coagulants, the Council on Pharmacy and Chemistry had specimens of the following preparations examined: Coagulen—Ciba, Fibrogen—Merrell, Hemagulen—Lilly, Kephalin—Armour, Hemostatic Serum Lapenta (Hemoplastin)—P. D. and Co., Thromboplastin—Lederle, Thromboplastin—Squibb, Thromboplastin Hypodermic—Squibb, Thromboplastin Solution—Armour, Precipitated Horse Serum (Coagulose)—P. D. and Co. It was found that all of the specimens contained animal protein (in most cases horse or beef protein was present). In most cases the labels and descriptive literature did not state the precise nature of the coagulant. Since blood coagulants are usually administered as an emergency measure, physicians may overlook the danger and introduce these foreign proteins into a hypersensitive person. The Council recommends that all hemoplastic preparations be labeled to show the composition of the product, the character of the protein present, and to contain information which will cause the physician to inquire into the patient's history to learn if hypersensitivity exists. (*Jour. A. M. A.*, August 30, 1924, p. 705).

Indiana State Medical Association

(Continued from *Adm. Rep.*)

ENTERTAINMENT COMMITTEE—John R. Newcomb, Indianapolis, Chairman; A. L. Marshall, Indianapolis; Ernest Rupel, Indianapolis; John Sluss, Indianapolis.

FINANCE COMMITTEE—Alfred Henry, Indianapolis, Chairman; Harry Langdon, Indianapolis; E. E. Padgett, Indianapolis; W. W. Garshwiler, Indianapolis; Robert Moore, Indianapolis.

HOTEL AND HOUSING COMMITTEE—A. E. Guedel, Indianapolis, Chairman; LaRue Carter, Indianapolis; A. B. Graham, Indianapolis; C. R. Strickland, Indianapolis.

GOLF COMMITTEE—W. S. Tomlin, Indianapolis, Chairman; H. H. Wheeler, Indianapolis; Goethe Link, Indianapolis; Thos. L. Sullivan, Jr., Indianapolis.

PUBLICITY COMMITTEE—Thos V. Keene, Indianapolis, Chairman; Norman Jobs, Indianapolis; J. H. Taylor, Indianapolis; Thos. J. Beasley, Indianapolis; C. S. Goar, Indianapolis.

BOOK REVIEWS

INTRANASAL SURGERY. By Fred J. Pratt, M.D., assistant professor, eye, ear, nose and throat, Medical School, University of Minnesota; and John A. Pratt, M.D., assistant professor, eye, ear, nose and throat, Medical School, University of Minnesota. Illustrated with 195 half-tone engravings. Cloth. Price \$5.00. F. A. Davis Company, publishers, Philadelphia, 1924.

Most of our textbooks are too technical, the descriptions are not clear and there are too few illustrations. Such objections do not held in connection with this book on intranasal surgery in which nothing is left to the imagination and nothing is omitted by way of elucidation or description that would add to a thorough understanding of the subject. The latest and most approved intranasal operations are described in detail and the various steps elaborately illustrated. Most of the illustrations are reproductions of original drawings, which are anatomically correct, and most of which are made from actual specimens. Above all else the author teaches conservatism and practical methods of operation as the most satisfactory means of securing the best results for the patient.

It has been a long time since we have seen any book covering any phase of intranasal surgery that deserved more commendation than this one, and the book should meet with the favor of all men interested in rhinology.

DISEASES OF THE EYE. By Charles H. May, M.D., Director and Visiting Surgeon, Eye Service, Bellevue Hospital, New York; Consulting Ophthalmologist to Mt. Sinai Hospital, to the French Hospital, to the Italian Hospital, New York, and to Monmouth Memorial Hospital; formerly Chief of Clinic and Instructor in Ophthalmology, College of Physicians and Surgeons, Columbia University, New York. Eleventh revised edition. 374 original illustrations, including 23 plates with 73 colored figures. Cloth. Price \$4.00. William Wood and Company, publishers, New York, 1924.

A review of this well known and popular book seems superfluous. No medium sized textbook on ophthalmology has met with such universal favor. The present is the eleventh revised edition, and already more than 150,000 copies of the book have been sold. It has been translated and published in French, German, Italian, Spanish, Dutch, Japanese and lastly in Chinese. It is used as a textbook in nearly every American medical college, and meets the needs of the great army of physicians in general practice. As we have said concerning previous editions, the book is of convenient size and deserving of the highest commendation as a practical and trustworthy textbook covering diseases of the eye.

MEETING PLACE COMMITTEE—Charles N. Combs, Terre Haute, Chairman; Wm. A. Doeppers, Indianapolis.

RECEPTION COMMITTEE—All members of Indianapolis Medical Society.

MILITARY COMMITTEE—J. R. Eastman, Indianapolis, Chairman; LaRue D. Carter, Indianapolis; W. M. Stout, Newcastle; Charles N. Combs, Terre Haute; Carl Habich, Indianapolis; R. G. Hendricks, Indianapolis; J. S. Robison, Winchester.

BUREAU OF PUBLICITY—W. N. Wishard, Indianapolis, Chairman; F. W. Cregor, Indianapolis, Secretary; David Ross, Indianapolis; J. H. Stygall, Executive Secretary.

ADVISORY BOARD TO BUREAU OF PUBLICITY—(Appointed by Council)—S. E. Earp, President Indiana State Medical Association; E. M. Shanklin, Chairman of the Council; A. E. Bulson, Jr., Editor Journal of the Indiana State Medical Association.

THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

ISSUED MONTHLY under Direction of the Council

ALBERT E. BULSON, Jr., B.S., M.D., Editor and Manager

OFFICE OF PUBLICATION: 406 West Berry Street, FORT WAYNE, INDIANA

VOLUME XVII

OCTOBER, 1924

NUMBER 10

ORIGINAL ARTICLES

THE INFLUENCE OF IGNORANCE AND NEGLECT ON THE INCIDENCE AND MORTALITY OF CANCER*

WILLIAM J. MAYO, M.D.
ROCHESTER, MINN.

The most wonderful substance in the world is chlorophyll, the green coloring matter of plants, which converts the energy of the sun's rays into a mechanism for changing the inorganic world into the organic world of plant life, and on which all animal life depends for oxidizable material for growth and energy.

If the cancer cell is compared with the normal cell, it is found that the normal cell, as an oxidizing mechanism, not only converts energy into growth, but also provides for functions. In other words, a normal cell balance is established between the amount of nucleus and the amount of cytoplasm. The cancer cell, by reason of its enormous nuclear development, converts all the energy derived from the oxidation of its nourishment into growth, without function, and in this growth it takes its nourishment from the normal cell.

The normal cell can be compared to a machine which produces just enough energy for its proper purposes. The cancer cell oxidizes material like a fire until it degenerates and undergoes necrosis in those parts which have lost their ability to obtain nourishment, the ashes of a conflagration. The resemblance has long been pointed out between fertilization of the ovum by the spermatozoon, which gives the ovum power to grow, and the action of some unknown substance which so disastrously stimulates the embryonic cell into abnormal growth. As to what this stimulating substance consists of, there are an enormous number of theories and a paucity of facts.

I have never observed a case of cancer in which there had not been some pre-existing instability of the tissues, and a long continued irritation. It would seem as if the long suffering tissues respond to the chronic insult of the injury by supplying for repair cells less and less mature, until finally,

through sheer inability to supply sound cells to heal the lesion, the tissues reach a stage in which there is uncontrolled production of unsound cells, too immature to heal the breach of continuity, or to furnish surface protection to normally protected tissues.

Admitting that we do not know just why chronically irritated tissues fail to repair their damage completely, we are by no means convinced that cancer is dependent on an external agency in the general nature of a living organism, bacterial or protozoal. The stumbling block to this belief in a parasitic agency is the fact that when malignant cells travel through the lymphatics, or through the vascular system to a distant organ, it is not the type of cell of the new host that develops, but the type of cell of the organ in which the cancer originated. When, therefore, cancer metastasizes from the stomach to the liver or the lungs, the new growth is a cancer of the stomach, in a different situation, which has converted to its own use, so to speak, the nourishment of its host; it is in no sense a cancer of the lung or of the liver. One would reason that, if the causative agency of cancer is something outside the body, then when this agent is carried to the liver, lungs, or other tissues, it would cause cancer of these tissues. A rather unsatisfactory hypothesis has been advanced which presupposes that the causative agent is ultramicroscopic and is carried with, and acts only on, the cells to which it had become acclimated in the primary focus.

The bipolar hypothesis of Crile is one of the latest with regard to the causation of cancer. Crile postulates that the nucleus of the cell is the positive pole, and the cytoplasm the negative pole, but we are left in the dark as to what disturbs the electric mechanism.

In any event, the cancer cell itself acts as the parasite.

OUTSTANDING FACTS

The first outstanding fact is the controlling influence of some source of chronic localized irritation which, if removed, obviates the development of cancer. This raises the question of why cancer should develop if the causes of chronic irritation are avoided, or removed before cancerous change begins.

*Presented before the Public Meeting of the Indiana State Medical Association at the Indianapolis Session, September, 1924.

The second fact, of equal importance, is that every cancer is primarily a local disease, whose removal, in its early stage, insures cure.

Ignorance and neglect of these two facts lead to pitiful consequences.

If one studies minutely the pathology of the new growths, he finds that the variation in malignancy is in inverse proportion to the differentiation of the cells composing the tumor. The higher the maturity, that is, the more nearly normal the cells of a malignant growth, the lower is the degree of malignancy.

Wilson, MacCarty, Broders, and Evans have furnished important data on the cancer problem.

Wilson, twenty years ago, introduced the method of instantaneous staining of frozen sections by polychrome methyl blue, a method which has been one of the most important contributions to the study of living pathology.

MacCarty, in his study of cellular pathology, points out that the volume of the nuclear elements of the cell in proportion to that of its cytoplasm indicates the cell's possibility of growth, and notes that if the cytoplasm of the cell does not undergo differentiation, there will be no physiologic function.

Broders, in formulating his index of malignancy, studied the microscopic cellular pathology of squamous-cell cancerous growths from 1,628 patients in the Clinic, without reference to the case histories. He divided the cases into four groups, representing grades of cell maturity: Grade 1, cancers in which seventy-five per cent of the cells were differentiated, and twenty-five per cent were embryonic, or undifferentiated; Grade 2, cancers in which the differentiated and undifferentiated cells were about equal; Grade 3, cancers in which only twenty-five per cent of the cells showed evidence of differentiation, and seventy-five per cent no differentiation, and Grade 4, cancers in which none of the cells approached the normal. The ultimate results following operation were then investigated, and it was found that in Grade 1, good results were obtained in ninety-two per cent of the cases; in Grade 2, in sixty-two per cent; in Grade 3, in twenty-five per cent, and in Grade 4, in only ten per cent. This method of grading malignancy was then applied to a larger series of cases, and the findings confirmed. Broder's work confirms, pathologically, what has long been known clinically, that cancer varies greatly in malignancy, and its curability depends on the nature of the cells which compose it, as well as on the stage of development.

Evans, in 1919, studied the pathologic conditions in 4,000 cases of uterine myoma in the Clinic, in order to determine the percentage undergoing sarcomatous change, and demonstrated that the percentage of mitotic figures of cells of the malignant connective-tissue group gave a reliable index of the malignancy. He showed that the

greater the amount of nuclear material in proportion to the cytoplasm of the cell, the more rapid the mitosis and the more malignant the growth, emphasizing the fact that so far as the cellular growth is concerned, the nucleus is the source of the proliferation.

Bowing, working with radium in the Clinic, found that cancers which, before operation were undifferentiated or highly malignant, after irradiation, although not destroyed, showed changes in the cytoplasm of the nature of differentiation microscopically; that is, had a tendency to assume the appearance of normal adult tissue, and therefore were less malignant.

In performing the modern operation for cancer, the extent of the operative procedure and the prognosis depend on the microscopic diagnosis. Suspicious tissue can be removed and studied microscopically while the operation is in progress, and the surgeon can know, within three minutes, whether or not a growth is malignant, and the degree of malignancy. The results of an operation can be foretold, and they are favorable in proportion to the promptness with which the disease is recognized and proper treatment applied.

EXTENSION OF CANCER

A study of the neglected cases of cancer will show that the extension of the growth, without regard to the size, or situation, or the organ involved, is a prominent factor in the possibility of cure. In cases observed in the Clinic in which the cancer has not extended beyond the primary focus, more than seventy-two per cent of patients are cured, but if the disease has extended beyond this focus, only nineteen per cent are cured. Cancer extends directly by means of the vascular system, particularly the lymphatics. Cases of direct extension to neighboring organs and tissues are in some respects the most favorable for treatment, as by extensive operation the disease may be eradicated; the most successful operations are those which remove the lymphatic glands and channels.

Cancer cells usually invade the vascular system by malignant thrombosis, and cells are carried from the thrombus in the connecting veins to the lungs or liver. Gentle handling of the growth and early division of its vascular connections will influence the ultimate result profoundly. The reason manipulation of cancerous growths, under various guises of so-called mechanical therapy, leads to such disastrous results is readily apparent. Manipulation spreads the disease to the surrounding tissues, and generalized distribution through the vascular system follows.

Pastes and plasters, while removing all the tissues they destroy, cannot remove the glands. They leave unimpeded the paths by which the disease progresses. The great success of the cancer quack depends, not on the number of cancers that

he cures, but on the enormous number of non-cancerous lesions which he removes in the name of cancer; all are fish that come to his net.

Medical science aims at the truth and nothing but the truth. The constant effort is to develop better methods of ascertaining facts, because on facts diagnosis is based. For this reason the medical student is given a long course of study in the fundamental sciences, that he may acquire the foundation necessary for correct diagnosis. The irregular practitioner is not trained in diagnosis, and is interested only in exploiting his method of treatment, not in knowing whether his diagnosis is correct.

"CANCER CURES"

While I was in Italy in 1910, I observed Professor Fischera's work with great interest. Acting on the known facts, first, that all living animal tissue, as the result of its energy, produces metabolic substances which are poisonous to living tissues of the same kind, and, second, that the more immature the cells of the body, the more effective these poisons, Fischera manufactured serum from human embryos expelled between the second and sixth month, and injected this serum into patients suffering from cancer. The effect on the living embryonic tissues was most marked, and to some extent the experiments showed cell specificity. Extraordinary effects were sometimes produced. In certain cases the malignant growths were greatly reduced, and for a time the patients were partially relieved from some of the more serious symptoms, especially pain. In spite of this early improvement, however, the patients were not cured. Of late, Fischera has been experimenting, he believes successfully, to see whether, by inoculation, the tissues of the body could be rendered immune to cancer, just as the development of smallpox is prevented by vaccination. The proofs with regard to this experiment must depend on careful investigations, conducted over long periods, on an enormous number of persons, with proper control.

Blair Bell, of the University of Liverpool, has found that persons working in lead industries become temporarily sterile, and also that lead has a markedly deleterious effect on embryonic cells. In a large series of investigations, he has used a therapeutic preparation of lead in certain advanced cases of cancer. I visited his hospital last year and was shown many patients whose cancers had been greatly reduced, and their pain relieved. Bed-ridden patients had so gained in strength that they were able to be up and around, but again, so far as I know, none had been cured. Chemical poisons, other than lead, have been shown to have a similar effect on cancer. Several of these mineral cancer cures are supposed to be made of gold. I fear the gold comes from the unfortunate patient. These two examples suffice, however, to show that many agents, acting either by stimulating reparative processes of the body,

or by directly affecting the metabolism of the growth itself, probably both, markedly influence cancer. Pain is relieved, the growth reduced in size, and the patients gain strength, but, unfortunately, none of these patients has been cured.

Just now the medical profession, as well as the public, is suffering from an influx of widely heralded serums and other forms of treatment for cancer in the hands of men who are, as a rule, of the type of the quack, lacking in knowledge or honor, frequently in both. These serums are called cures, but they do not cure. Patients with large, hopeless growths are led to believe that they are being cured, and wax enthusiastic over fancied or real improvement, which is proclaimed as proof of cure. Obscure notices in the obituary columns of a later day do not confirm these claims, but, unfortunately, these death notices do not receive the same publicity as the alleged cures.

IS CANCER ON THE INCREASE?

Since the Civil War the average length of human life has been increased twelve years. These added years, from the age of forty to fifty-two, bring an enormous number of persons into the cancer age. It is claimed that cancer is not common among aborigines, but they are short-lived, and few of them live into the cancer decades. Specific forms of irritation, for instance, irritation caused by the chewing of the betel-nut by the natives of the East Indies, produces an enormous incidence of cancer of the cheek, and that caused by the wearing of kangrie baskets over the lower abdomen by the natives of Kurdistan produces a large number of the cancers of this part of the body. These types of cancer, seldom if ever seen in this country, are evidences of chronic irritation in relation to malignant disease, and show that the tissues of the aboriginal peoples are not immune.

Cancers of the external tissues of the body do not seem to have increased in the same proportion as those of the internal tissues. If cancer is on the increase, there is no reason why cancers of the external parts of the body should not increase proportionately. Is it not probable that readily visible cancers were diagnosed as commonly in the olden times as at present? Our new diagnostic means of discovering diseases of the concealed organs of the body have increased greatly in recent years. The x-ray, the various "scopes," and the exploratory incision enable one to recognize diseases formerly undetected. Internal cancers are no longer hidden, and can be successfully removed by surgery. The recognition and elimination of known causes of irritation are aiding in the reduction of external cancers; for example, the recognition of the effect of the heat of the clay pipe in the production of cancer of the lip and tongue, the effect of broken and jagged teeth in the production of cancer of the mouth, which good dentistry has eliminated, and the effect of syphilis as an agent in the production of precancerous

lesions of the mucous membranes and skin. Earlier diagnosis of syphilis, made possible by serology, and more effective treatment of this disease, have largely eliminated the latter type of lesions. The incidence of cancer of the internal parts of the body is beginning to diminish, because a host of causes of chronic irritation of internal organs are being detected, and removed or prevented. It has been found that irritation from gallstones often leads to cancer of the gall bladder. Gallstones are now removed earlier, and cancer of the gall bladder is diminishing. Is it possible that the cancer alarmists have overlooked the obvious, and have lost sight of these important factors in the development of our knowledge of cancer? We must not depend too much on statistics. Sir Berkeley Moynihan says that statistics can be made to tell anything, even the truth. While it may be that cancer is on the increase, there is greater alarm over the increase in cancer among the statisticians than among clinicians.

We hear little of the thousands of persons who have been cured of cancer by operation, but the deaths are heralded so widely that the laity have become frightened and postpone examination until the condition is hopeless.

CONCLUSIONS

Our knowledge of cancer is excellent, so far as it goes. Because we are in doubt as to the exact exciting factor, we should not be too pessimistic. The discovery of the bacillus of tuberculosis as the cause of consumption did not bring a cure for tuberculosis. We should not emphasize our failure to learn the exact cause of cancer to the extent of failing to make use of the wealth of knowledge which we possess concerning the disease itself. It is something to know that it is not hereditary in the ordinary sense, although certain families may have tissues more subject to chronic irritation than others; but even so, it has been shown how quickly this factor is bred out. It is a comfort to know that cancer is not contagious.

Elimination of all sources of chronic irritation, early diagnosis, and removal of the growth while it is still local, are the salient points in the prevention and cure of cancer at present.

The results of modern surgical operation for the removal of cancer can be improved by the use of x-ray and radium, in the hands of a competent specialist, especially in the more cellular growths, Grades 3 and 4 of Broders' index of malignancy, in which surgery alone gives the poorest results. But the men who use x-ray and radium must be "honest-to-goodness" specialists, who work with good surgeons, and competent pathologists, and do not belong to that group of self-styled specialists who, with a nickel's worth of radium, do a million dollars' worth of harm. However, we shall always have with us, through ignorance and neglect, a large group of surgically incurable patients, for whom various agencies must be tried; but let us be sure that the application of

these more uncertain agencies is limited to the hopeless, instead of adding to that number by the use of half-baked and quack methods during the surgically curable stage of the disease. Above all, let us not as a profession, be prejudiced, but keep our minds open to new facts, despite their source; for cancer is a great scourge.

NERVOUS DISORDERS AND PUBLIC WELFARE*

HUGH T. PATRICK, M.D.
CHICAGO

When our government plucked some four millions of young men from civil life and dropped them into the army, it performed an experiment in psychology: an experiment so striking in its results, so lucid in its mechanism and so overwhelming in its proportions, that, in spite of our stupidity, it taught us many lessons.

These young men were a picked lot, the best we had. And yet some of them could not fit into the life of the training camps, with all that it was and all that it portended, and consequently fell ill with various nervous disorders. In different camps I examined typical cases of what had foolishly been called "shell shock," in men who had never heard a shell nor seen a machine gun. Other soldiers broke only when they reached the camps in France or were just back of the fighting lines and, finally, some were strong and steady until, weary, cold and hungry, they were among bursting shells and mangled men, when they "went to pieces" in the form of some nervous disorder. In all the mechanism was the same and the results were the same. The man could not bear the situation and for cogent reasons he wouldn't run away. The nervous disorder was a "behavior reaction," a disagreeable means of escape from something infinitely worse; a subconscious dodging of the issue: a psychological dugout into which to retire.

Of course there were other means of escape. A few did desert, a few mutilated themselves, others deliberately lied and feigned disease. A very few found another way out.

My first experience of this sort of thing occurred here at Fort Benjamin Harrison. A nice, well-meaning, rather simple recruit came in who had led a normal life in his village, had not only made his living but was the principal support of a widowed mother. Evidently he was nervous and apprehensive but very anxious to "do his bit" and to "go with the boys." Instead of rejecting him at once (as I later would have done) I asked that he be given two weeks' trial in camp. In a week his captain sent him back. Obviously he was worse; quite unfit for a soldier but piteously begged to be passed. I explained

*Presented before the Public Meeting of the Indiana State Medical Association at the Indianapolis Session, September, 1924.

to him that at home, in the mill, providing food for the nation he would be more useful than in the army, and rejected him. Before his brother could reach the camp to take him home, he went out and killed himself. That was *his* answer to an insoluble problem; his reaction to an intolerable situation.

After the armistice, in some of the returned soldiers we had post-war nervous disorders. They stood the military service but couldn't meet the situation on their return.

A colored boy who had gone through the war fairly well was sent to me with *camptocormia*, (bent back); he was constantly bent forward and sidewise. In ten minutes I had his back straight but the next day he was as bad as ever. Why? Before the war he had been a porter in a barber shop. Now, he wished the government to pay him a monthly stipend, send him to a technical school for three years and make of him a civil engineer. Of course if his back remained straight and well, it meant back to the barber shop; an unendurable prospect.

Another ex-service man was quite disabled by spasmodic wry neck, other local spasms, headache, insomnia and general weakness. His war record was fine. He had climbed from private to captain and was somebody. Before the war he had been a rather humble citizen, had never earned over \$2,500 a year. Now he wished to marry a girl of social position and said he could not on less than \$5,000 a year. He wouldn't give up the girl and he couldn't get the \$5,000. The nervous disorders were his answer—and his appeal to Uncle Sam to solve the problem. (I don't mean that these men were imposters and malingerers. This dodging is more or less unconscious, or subconscious).

Now, probably few of us realize how like a long war is our daily life; that from the dawn of intelligence to the last sleep, life is a constant conflict between what instinctively we should like to do and what society bids us do. Very early the normal child learns that perfectly natural acts may not be carried out in a completely natural way. Certain bodily functions may be performed only in certain assigned places. He may not take something he sees simply because he wants it and he may not strike whenever he feels like it. As we grow older these arbitrary restraints are more numerous and infinitely more complex. Many of us scarcely know it. In spite of the assiduously inculcated doctrine of original sin, most of us have a feeling that we are inherently and instinctively "good." Nothing could be more fallacious. To use the "short and uglier word" is a gross insult; to call a man a thief is libel with a legal penalty; to impugn legitimacy of birth is to risk bodily violence or even death. And yet it is quite indisputable that everyone is instinctively a liar, that we all are born thieves, that men naturally are polygamous, and most women polyandrous.

We do not commit these and other sins because we have learned not to. And the majority of us stand this constant restraint and direction for society's good pretty well, and an indulgent public calls us normal. Some of us can't or don't, make this adjustment and we, then, are the unsuccessful; the unhappy, the criminals, the nervous, the insane; the tramps, paupers, cranks; the dwellers in sanitariums and hospitals; part of the throng that keeps the doctor trotting and fills the reception rooms of specialists.

But there is still another sort of conflict constantly going on, the origin of many disorders; the conflict with self; that is to say, the conflict of different desires or instincts or trends. I may inordinately desire wealth but hate the intense industry necessary to acquire it. My adjustment, or rather maladjustment, to this conflict may be to turn thief. I may passionately desire my neighbor's wife but be too timid or have too much "conscience" to take her. The resolution of this problem may make of me a better man, a malefactor or an invalid. A woman may love her husband because he is a strong character but hate him because he is a tightwad. This may mean family jars—or attacks of palpitation of the heart.

A third sort of conflict in many of us is due to the disproportion between desire or ambition and capacity. I may long to be a great surgeon like Dr. Mayo* but lack the brains to become one. I may set my heart on being mayor or governor, but lack the political acumen and other qualities necessary to reach this goal. Then I've got to adjust myself to this discrepancy or something goes wrong. I may commit assault and battery, become an alcoholic parasite or acquire chronic headache, neurasthenia and sinking spells.

In civil life, then, in our daily walk, we have hundreds of thousands of cases of "shell shock" and other neuroses of maladjustment. That is, there are multitudes of persons who cannot meet conditions as they are, who do not fit into their environment, who remain the square peg in the round hole and they, like the maladjusted soldier, escape by crawling into an uncomfortable psychological dugout. That is, they develop a nervous disorder in an attempt to get away from something that for them is much worse.

In other words, a lot of disabling and distressing nervous disorders are behavior reactions. I have already indicated what I mean by that but possibly a little more illustration will clarify. Of a group of men in a difficult (perplexing, embarrassing, dangerous or intolerable) situation, one deliberately runs away, one unconsciously runs away (ambulatory automatism, the "amnesia" of the newspapers), one gets drunk, one prays, one gets "nervous prostration," another resorts to chicanery or crime, one gets intractable dyspepsia and headache and some manfully struggle through to success or honorable defeat. Now

*Dr. Mayo was present.

the "nervous prostration," "dyspepsia" and headache are as much a behavior reaction as are the running away and the resort to prayer or alcohol.

Here is a most ordinary example. A single woman of twenty-nine, doing office work, came to me complaining of attacks of shortness of breath, palpitation, "heart failure," insomnia and great weakness. She was intensely concerned about her symptoms. Physically she was sound. But her job didn't suit her; her associates irritated and disgusted her; her necessary conditions of living were intolerably irksome. As I could change none of these things, my treatment and reassurance accomplished little. Some years later I happened to see her again, the picture of health, very happy and perfectly well. Why? She had happily married. That is to say, her adjustment to the new conditions was perfect and all her ills and fears disappeared.

A young man of sufficient means, cultured, a bit shy and a trifle effeminate, in a prosperous business with a considerate relative, was never well, seldom happy, frequently irascible. He moved to a small farm where he bred a few fancy sheep and developed some unusual flowers,—to his complete satisfaction and with perfect health. Circumstances forced him back to the distasteful business in the hated city. Soon he developed insomnia and rebellious headache, again contributed regularly to the exchequer of a well known stomach specialist, lost considerable weight and frequently his temper. He went back to the farm, is again the round peg in a circular hole and all is well.

Here is a quite different type. An Iowa physician brought in a hard-working farmer's wife whose right arm had suddenly become paralyzed; apparently a stroke. But it wasn't that at all. A little weariness of her job, a little domestic friction, a little soreness in the arm,—and the paralysis was a temporary way of settling the difficulties. In short "conversion hysteria." By appropriate treatment the paralysis was relieved in about thirty minutes.

A young lady of eighteen had lost her voice three years before; since then she could speak only in a whisper, and during most of that time had been making daily visits to a doctor's office for electric treatment. No results. What was the matter? A sensitive girl, a rather difficult situation at home, trouble in school, disharmony, then a bad cold making her quite hoarse and suggesting loss of voice, and the partial solution of most of her problems by becoming voiceless. Having ascertained the nature of the trouble, it took but four days to cure her completely.

The following is of a type with which Dr. Mayo must be very familiar. A woman, middle-aged when I saw her, first had been operated on for ruptured perineum, rectocele and "ulcer of the womb"; later, for hemorrhoids and laceration of the cervix. Later still a curettage was done and

next the ovaries and tubes were taken out. Finally, a hernia, relic of one of the previous operations, was repaired in an effort to make a well woman out of an invalid. Now, investigation showed that this patient never had been physically disabled but that always she had been intellectually and temperamentally unequal to life's demands. Her countless complaints were her ever-ready alibi, her adequate excuse for not doing the things she couldn't do and hated to do; her psychological refuge. She couldn't go off to a fine hotel in California nor to elegant ease in the Adirondacks. So she did what she could; went into invalidism. And each additional operation supported her in this move and each puzzled specialist fixed her residence in this land of the maladjusted.

An exceptionally intelligent and cultured single woman in the thirties had for years been an invalid with severe headaches, "stomach trouble," "rectal trouble," ready exhaustion, loss of weight, anemia, abdominal and pelvic pain and tenderness. She had enteroptosis with the right kidney far down. A distinguished New York surgeon took out the appendix and fastened up the prolapsed kidney. No results. A skilful gynecologist did a ventrifixation and curettement of the uterus. No improvement. She was given a prolonged rest cure by a past master of the art. This helped a little as the surgery. After starting to treat her, I gave up the job because it was impossible to control the general situation. She continued to be the same suffering martyr and the despair of her family until circumstances offered her and she accepted an active, taxing, not to say laborious occupation; but an occupation that was congenial in an environment that fitted her. Presto! Change! The baffling symptoms all disappeared and for years she has continued to be a very busy, exceedingly useful and quite happy woman.

These are only a few stray examples of the pervasive disorders which infiltrate all strata of society. Every one of you knows of instances of such maladjustment: some one who isn't quite all there; some one emotionally unstable, eccentric, peculiar, odd. How many "nervous breakdowns" do you know of, and of good chaps who just will go on a spree? Recall the boys and girls who broke down in high school or college and the fine man or woman who committed suicide; the man who absconded and the woman who went wrong. Ever hear of a good wife and a decent husband who absolutely couldn't agree and consequently of a home broken up? You have. And we can put into the same category some cases of asthma, palpitation, constipation and diarrhea, headache, bellyache and backache, dysmenorrhea and dyspareunia, poor vision and eye strain, tremors, wry neck, paralysis, convulsions, plepharospasm, aphonia, insomnia, impotence, anorexia, abnormal micturition, dizziness, fainting spells, shortness of

breath, sneezing, stammering and hiccough, indigestion and vomiting, a score of other sicknesses, oceans of unhappiness and continents of crime.

Well, what are we going to do about it?

First of all *education*. When these troubles are scientifically considered and are understood as typhoid fever is understood, we shall begin to eliminate them. For more than two years the English needlessly invalidated home hundreds of thousands of nervous soldiers under the misnomer "shell shock." When we got into the war the thing was better understood and only one per cent of our cases had to be taken out of the army. Education, then, first of the public, because no great movement can reach *very* much in advance of public understanding and public opinion.

Next, education of the doctors which, I blush to confess, is sadly needed. Especially education of parents and teachers who guide us during the plastic years. Necessarily education of law-makers, of the judiciary and of all welfare workers.

Is all this worth while? It is. If we are to progress, nay, if we as a people are to survive, we must better understand ourselves,—and, mind you, most of ourselves is above the eyebrows. No nation was ever wiped out by mere disease or physical deterioration. From the Assyrians to the latest European débacle, every national submergence has been caused by the same thing that causes personal insuccess, incapacity for successful adaptation, for successful adjustment to things as they are.

Therefore, individually and as a nation, our comprehension must be broader, our mental vigor more sturdy and especially must our emotions be directed from a higher plane. Then, and only then, may we confidently look forward to being *the* people of the future.

Now if you folks will indulgently grant me about two minutes to talk to the doctors about treatment of individual cases, I shall have finished.

First, treat the patient for what he has, not for what he complains of. In other words make a diagnosis. If you go to Dr. Mayo for stomach-ache and vomiting he doesn't treat those things. He makes an adequate examination, learns the nature of the trouble, and then removes the cancer or the gall bladder.

A single woman, forty-two years old, had been an invalid and recluse for thirteen years. Before that, from the age of twenty to twenty-nine, she had consulted numerous doctors for various complaints and had received forty-three varieties of treatment without benefit. Finally, a doctor told her she must give up her occupation and go back to the farm, which she did, there to continue to suffer as before. Now, it was astonishingly easy to ascertain that the years of suffering and disability were due to foolish ideas concerning enanism,—none of which ideas she had confided

to doctor or friend. And she would not have told me, had I not inquired. In short, no diagnosis had been made and symptomatic treatment was futile.

I saw in consultation an intelligent woman in the fifties who was undergoing a prolonged "rest cure," with forced feeding, isolation, massage, etc., for "extreme exhaustion," "mental depression," "insomnia, etc." It didn't take more than thirty minutes of logical examination to ascertain that the whole trouble was terror of tinnitus aurium (buzzing in the ears) which for her was buzzing "in the head" and consequently she was momentarily expecting a fatal stroke of paralysis. The diagnosis having been made and explained to her, she got out of bed and cheerily went off to California on a pleasure trip.

In short the treatment must logically follow a real understanding of the case. A neurosis being a behavior reaction, must be treated as such. Who would give valerian to stop a hobo from tramping and riding blind baggage? And yet, thousands of tons of valerian have been prescribed for disorders as distinctly a behavior reaction as is vagrancy. Did anyone ever suggest strychnia or Dr. Bunkem's idiophosphatic tonic to cure the pathologic liar? Is forced feeding a good measure against prostitution, removal of the ovaries a rational remedy for holy rolling and change of climate a panacea for inebriety? If a would-be Napoleon of finance fails and absconds to Canada do we advise massage and stimulating baths? If a man is pestered by a petulant wife, hates his domineering mother-in-law, can't make his business go and consequently has headache, dizziness and indigestion, do we remove his appendix, straighten his septum, drain his gall bladder and finally feed him thyroid, pituitary and bromide? I am sorry to say, sometimes we do. But we shouldn't.

ADENOMATOSIS OF THE THYROID

J. W. SNYDER, M.D.
INDIANAPOLIS

The adenomatous thyroid is primarily a surgical thyroid. Although such thyroids may be present for many years without producing symptoms and are apparently innocent, yet each adenomatous goiter entails such a definite possibility of future disaster that prophylactic resection is to be strongly advised.

ETIOLOGY

The primary origin of adenomatous tissue in the thyroid is still clouded with uncertainty. Wolfer (1883) in a comprehensive study of the thyroid described the gross and microscopic structure of adenomata and the degenerative changes which were so frequently present. He believed that adenomata originated from foetal rests present in the body of the gland. He described foetal

cells occurring usually in the interstitial tissue between the acini and taking no part in the formation of the glandular structure. These cells occurred in groups or cell nests and it was from such cell groups that Wolfer assumed adenomata later developed. To the present time we have no evidence to controvert this assumption and it has met with general acceptance.

Why adenomata should develop from these cells in some cases and not in others is open to question. It is probable that the same conditions which produce a colloid enlargement of the thyroid also initiate a proliferation of these cells. Such a proliferation, once started, may not cease, although the conditions which were primarily responsible for such stimulus have changed. As shown in a previous article, colloid goiter is probably a deficiency disease due to lack of available iodine in the food and water supply. We may therefore postulate that if colloid goiter is prevented by prophylactic iodine administration, adenomatous goiter will likewise be prevented. While at present we do not have sufficient data to decide this point all clinical evidence points toward its confirmation.

The increased demands made upon the thyroid by certain metabolic stresses such as puberty, pregnancy, etc., is reflected in the gland by either a primary appearance of adenomata or an enlargement of the growths already present. After the cessation of such stresses the adenomas may either cease to enlarge or even decrease in size, but probably never entirely disappear.

PATHOLOGY

The adenomatous thyroid is characteristically irregular in contour due to the presence of the individual growths throughout the substance of the gland. Adenomas may be single or multiple and encapsulated or non-encapsulated. The substance of the gland proper about the growths may be entirely normal or it may exhibit extensive colloid deposit or show the marked hyperplasia characteristic of exophthalmic goiter. In other words, the gland itself is probably uninfluenced by changes occurring in the adenomata and behaves in an entirely independent manner except for more or less direct injury, the result of pressure produced by enlargement of the adenomata.

As a colloid goiter is frequently primary to, or associated with, an adenomatous development in the thyroid it sometimes happens that the adenomas are so completely buried in colloid that they do not become evident until the colloid portion of the gland decreases in size as the result of therapy or in the normal process of involution. This fact causes much confusion in the proper classification of goiters. A second confusing factor is the deposit of colloid in the adenomata themselves. Such deposits cause a thyroid with multiple adenomas to resemble a diffuse colloid thyroid and it is frequently so diagnosed.

The individual adenomas present an extremely varied histological picture. Examination may show nothing but a simple colloid appearance within the growth or degrees of cellular hyperplasia varying from an occasional low columnar cell to a picture indistinguishable from the hyperplasia of exophthalmic goiter. Such hyperplasia may be diffuse or localized to a portion of an adenoma and the remainder may show a simple colloid formation.

Certain adenomata are termed foetal since the type of cell entering into their formation corresponds closely to that seen in the early foetal thyroid. Such cells may be without definite arrangement, appearing in masses, while others show greater differentiation and are arranged in the form of acini without a lumen or with a central lumen containing colloid.

Adenomata are very prone to undergo degenerative changes. Such changes first appear in the center of the growth at a point farthest removed from the capsular blood supply. They may be classified as fatty, hyalin, hemorrhagic, cystic, fibrous or calcareous. The entire adenoma may be destroyed or a border of living cells may be found just beneath the thickened capsule.

Just what part such degenerative changes play in the production of a hyperthyroid state is open to question. Whether or not cellular hyperplasia contributes to the hyperfunctioning of adenomas is likewise a disputed point. In short, no definite pathological picture is characteristic of a hyperfunctioning adenoma and proof as to its direct etiologic relationship must rest entirely upon the clinical observation that in hyperthyroidism associated with adenomata removal of the adenomas promptly cures the disease.

CLINICAL COURSE

Adenomata for a period of years after their appearance are seldom productive of trouble. This free interval is one of the most characteristic features of the condition. The usual story elicited is that the adolescent type of goiter failed to disappear at the usual time and later the gland took on a more rapid enlargement, usually in women coincident with the increased metabolic demands of pregnancy. In other cases the goiter was first noticed during pregnancy, although some enlargement of the thyroid may have been noticed during youth which subsequently disappeared. In a few cases no history of a previous thyroid enlargement can be elicited. In regions where goiter is endemic adenomatosis may be present much earlier in life, even in early childhood.

Adenomata may be divided into two groups, depending on the presence or absence of toxic symptoms.

Non-toxic Group: All adenomata as previously stated at first belong in the non-toxic group, for toxic symptoms do not appear until the growth has been present at least fourteen years, the average duration being seventeen and

six-tenths years (Plummer). During this period the chief symptoms are those due to pressure changes. An unsymmetrical or unilateral enlargement frequently displaces the trachea to one side or produces a paralysis of the recurrent laryngeal nerve, resulting in hoarseness, a brassy cough and occasionally inspiratory stridor or dyspnoea. Likewise, a portion of the gland may enlarge downward and entering the throat give rise to a substernal goiter. Among the obstructive effects of the substernal type of goiter venous dilatation of the superficial veins in the neck is the most evident and should put one on his guard relative to the possibility of a substernal extension of the goiter.

Two special examinations are always advisable. First, a laryngeal examination to determine the presence or absence of a recurrent laryngeal nerve paralysis, and second, a roentgenogram of the chest to rule out or show the extent of a substernal projection. With these precautions observed the average non-toxic case may otherwise be evaluated in the same manner as any other surgical case in regard to the risk of operative procedures.

Toxic Group: The factors determining the change from a non-toxic to a toxic state in adenomatosis are unknown. Presumably it is in the nature of a stimulus to the gland. Kocher many years ago pointed out that the administration of iodine induced toxic symptoms in a previously non-toxic case. Time has amply confirmed his observation relative to the adenomatous thyroid, although it is probably not true of exophthalmic goiter (Plummer). However, in a large number of cases no history of iodine administration can be elicited and in this connection Plummer states: "It may be inferred that the adenomatous tissue has an inherent tendency to hyperfunction which is favored by various factors. The increased rate of exhaustion of thyroxin and the resulting elevation in the intensity of stimulation of the thyroid which we have reason to assume exists in conditions such as essential hypertension, pregnancy and pituitary disease, favor the development of adenoma and not infrequently excite adenomatous thyroids to hyperfunction. In these cases the tendency to store colloid is, in general, inverse to the tendency to hyperfunction."

SYMPTOMATOLOGY AND DIAGNOSIS

Toxic symptoms in adenomata develop slowly and insidiously. The course is even and progressive without the marked fluctuation in intensity and the crises characteristic of exophthalmic goiter. The first warning may be cardiac decompensation with anasarca. Such cases are frequently regarded as purely cardiac and so treated. Because of the characteristically mild and insidious onset the disease escapes attention much longer than exophthalmic goiter and visceral degenerations have usually progressed much further before the disease is recognized.

All the symptoms of pure hyperthyroidism may be accounted for by an increased metabolism. A simple way to illustrate this point is the following. When an individual walks on level ground at a very slow rate his metabolism is about one hundred per cent above the normal. If we assume he could continue walking at this rate indefinitely without rest he would eventually exhibit all the classical symptoms we associate with pure hyperthyroidism, namely: palpitation, tachycardia, increased surface heat over the body, perspiration, weakness, tremor, increased appetite, loss of weight, nervousness, increased blood pressure and finally visceral degenerative changes. These symptoms are all found in the classical case of advanced toxic adenoma and can be produced in a normal individual by the prolonged administration of thyroxin or thyroid extract in sufficient dosage (Plummer).

In exophthalmic goiters, on the contrary, certain symptoms appear in addition to those noted above namely: exophthalmos, a peculiar psychic state of mental imbalance, gastrointestinal disturbances such as nausea, vomiting, diarrhoea, etc. Such symptoms are not accounted for by an increased metabolic rate alone, neither can they be induced in the normal individual by the administration of thyroxin. It is, therefore, thought that the toxic state of adenomata represents a pure hyperthyroidism while exophthalmic goiter suggests some secondary factor, possibly a dysfunction of the gland with the production of an imperfect products (Plummer).

In the diagnosis of hyperthyroidism the most important point is to be suspicious of its presence. Especially should all cardiac conditions be investigated with this point in mind. A prominent goiter is not essential as the growth may be entirely substernal. Any case giving a history of weakness, loss of weight, etc., with an increased pulse pressure and elevated cardiac rate should be regarded with suspicion.

The average case of thyrotoxic adenoma will give a history about as follows: over a period of two to three years an increasing nervousness and excitability may have been noted, associated with a feeling of stimulation and well being early in the disease. Sustained effort was at the same time impossible. The appetite was increased but in spite of this a gradual loss of weight and strength ensued. A slight tremor developed and the skin was constantly hot and wet with perspiration. The heart action became more forcible and the pulse rate increased. As the symptoms became more and more severe, a point was finally reached where cardiac decompensation or dyspnoea ensued which compelled the individual to seek medical advice.

Basal metabolic rate determinations are of inestimable value in both the diagnosis of hyperthyroidism and in the subsequent management of the case but all determinations are worse than

useless if done by incompetent technicians or by inaccurate methods. This point I feel has not been emphasized sufficiently.

The heart responds to an increased metabolic rate by an increased minute volume output of blood. It may become sufficiently trained up to task imposed upon it by the increase in metabolism of the body or it may become fatigued and may degenerate. Moderate hypertrophy of the heart is an evidence of adequate cardiac compensation and a favorable indication. Cardiac dilatation on the other hand is an evidence of fatigue and failure of compensation. The cardiac prognosis depends on several factors, which, according to Boothby are: "The intensity and rapidity of progression of the hyperthyroidism, the age of the patient, the presence of an independent heart disease, the physical stresses and strains to which the patient is subject and finally the presence of pre-existing hypertension."

The differential diagnosis between exophthalmic goiter and toxic adenoma rests on the signs and symptoms previously indicated and not upon the palpation or appearance of the gland, for one-third of all exophthalmic goiters have associated adenomas distributed throughout the gland (Boothby).

TREATMENT

Non-toxic Group: Surgery, unless contraindicated by other conditions, should be advised in all cases because of the tendency of adenomata to become toxic. This possibility increases from five per cent before the age of thirty, to sixty per cent at the age of sixty (Plummer). The pressure effects of the goiter and cosmetic considerations also enter into the question, although with less importance than the possibility of future toxicity.

However, all cases do not demand immediate operation, for it has been shown that most cases can wait with advantage until the age of twenty-five before resorting to surgery, since the possibility of recurrence is lessened and toxic symptoms seldom appear before that age. Surgical resection of the thyroid early in life may entirely miss small undeveloped adenomata, which later enlarge and produce a recurrence. At a more advanced age this possibility is correspondingly lessened.

Toxic Group: Co-operation between the internist and the surgeon is essential in the management of the toxic group of adenomata. Careful observation of the general status of the patient from day to day preliminary to operation is most important in the severe case. Complete rest in bed for an adequate time may change a desperate operative risk to a comparatively safe one.

It is unfortunate that ligation in toxic adenomata rarely, if ever, improves the patient, which is quite the opposite to exophthalmic goiter. There are various theoretical explanations for this clinical fact but none as yet have met with general acceptance.

When the patient has been put in the best physical condition possible a bilateral resection of the thyroid is carried out preferably under local anesthesia aided in certain cases by a primary nitrous oxide and oxygen anesthesia. Although the enlargement may appear to be confined to one lobe of the gland, a bilateral involvement is found as a rule at the time of operation, necessitating a double resection.

The final results in toxic adenomata are truly remarkable for, following resection of the gland, a bed-ridden patient with cardiac decompensation may be restored to normal within a period of two weeks provided operation has not been delayed until the heart is injured beyond the possibility of recovery.

The operative mortality in the two groups as shown by Pemberton's recent statistics stand in marked contrast. Before the development of toxic symptoms in adenomata the surgical mortality is .15 per cent, while in toxic cases the mortality varies between 2 and 4 per cent. The mortality in exophthalmic goiter, Pemberton reports as 1 per cent in terms of operation and 1.74 per cent in terms of cases. The difference shown in the operative mortality of toxic and non-toxic adenomata would, of itself, seem to speak strongly for early operation without consideration of the serious degenerative changes that may ensue as the result of toxicity.

BIBLIOGRAPHY

- Boothby, W. M.: *Diagnosis and Treatment of the Diseases of the Thyroid Gland*. Oxford Medicine, vol 3, chapter 15, 1921, Part 4, pp. 883-957.
 Kocher, T.: Ueber Jodbasedow. *Arch. f. klin. Chir.* Berl., 1910, xcii, 1166.
 Pemberton, J. deJ.: *The End-results of Surgery of the Thyroid Gland*. *Archives of Surgery*, 1923, vol. vii, pp. 37-46.
 Plummer, H. S.: *Functions of the Normal and Abnormal Thyroid Glands*. Oxford Medicine, 1921, vol. 3, pp. 839-873.
 Snyder, J. W.: *The Colloid Thyroid*. *The Journal of The Indiana State Medical Association*. Vol. xvii, 1924, pp. 210-212.
 Wolfner, A.: *Ueber die Entwicklung und den Bau des Kropfes*. 1883, Berlin, A. Hirschwald, 210 pp.

SOME REMARKS ON CONTAGIOUS DISEASES

CHARLES S. BOSENBURY, M.D.
 SECRETARY BOARD OF HEALTH
 SOUTH BEND

The prevention of contagious diseases depends upon the harmonious co-operation of the health department, the medical profession and the public. Morbidity and mortality rates are too high because there is considerable loose motion in the machinery of disease prevention.

Health departments have relied upon quarantine regulations and terminal fumigation as valued means of prevention.

Isolation of an individual ill with a contagious disease is justified on scientific grounds. Patients, convalescents and carriers are often responsible

for the spread of disease; they are the human culture media upon whom pathogenic bacteria develop. Quarantine is a matter of law. So is the physician's license. Law gives him the right to practice and law requires quarantine and the reporting of contagious diseases. Quarantine measures must of necessity fail when physicians neglect to make such reports. When no physician is in attendance it is required by law that the householder report contagious disease. The evasion of quarantine by any one is illegal.

Terminal disinfection by formaldehyde fumigation is an unnecessary expenditure of time, effort and money and should be abandoned. A good old-fashioned housecleaning will do more good than setting off a few formaldehyde lamps and creating a bad smell for a day or two. We fumigate now only upon request.

Proper pasteurization of market milk is a protective measure of unquestioned value. However, one does not need to go outside of Indiana to find much ill-founded prejudice against pasteurized milk.

In order that a health department succeed it must have the support of the medical profession. The first duty of any physician is the prevention of disease. His obligation to serve the community is as great as is his obligation to serve his patient. Therefore, it is incumbent on all physicians to take an active interest in public health, to know the law, and to obey it. Medical men, not laymen, should guide and direct public health activities, they should be the leaders. Certainly every physician should be interested in making early and accurate diagnoses and in promptly notifying the health department so that quarantine may be instituted without delay.

Public health measures fail chiefly because of the ignorance and indifference of the public with reference to disease prevention. Individual and personal responsibility is not recognized and there is a growing tendency to make the community assume obligations totally beyond what has generally been regarded as public necessity.

For over one hundred years there has been a definite method of preventing smallpox. Nevertheless, during the past few years there has been an annual increase in the incidence and virulence of the disease. Why? Simply because people have neglected vaccination. In Indiana there is no compulsory vaccination law. Consequently our people drift along until there is an epidemic and then, while everybody is scared, many are vaccinated. This is the present irrational method of smallpox control.

Vaccination is dreaded because of unfortunate infections, which are unwarranted with modern vaccine and rational technic. They occur because of interference with the vaccination wound, in the use of salve or other application to prevent a "take." Celluloid shields when used are commonly left on too long and one often sees and

smells a mess of shield, pus, blood and necrotic tissue at the site of vaccination. The manufacture and sale of vaccination shields should be prohibited by law! At times the fault lies with the physician in making the vaccination over too great an area. Introduce the virus over very tiny spots and successful "takes" and small scars will follow. It is harmful to bandage an arm or leg when vaccination is "taking." Constriction interferes with normal circulation and favors infection. As a dressing, a piece of sterile gauze loosely applied and held by adhesive tape is all that is necessary.

The diagnosis of smallpox is generally not difficult. The prodromal symptoms are indefinite but, with the appearance of the rash, there is the orderly succession of lesions characteristic of variola. When umbilicated pustules are found any physician should make a diagnosis, but often such lesions have been called jiggers, Cuban itch, straw itch and everything but smallpox. Smallpox and chickenpox are often confused. Examine the patient's back for here one may observe the lesions over a large area. If all of them are of the same type, or practically all, then look out for smallpox. If there is a mixture of lesions, especially if there is found the dewdrop vesicle, the diagnosis of chickenpox may be made with certainty. The mild discrete type of smallpox is often misleading, and there is difficulty in convincing patients, and at times their physicians, that it is really smallpox.

Diphtheria is the best understood of all contagious diseases. Its etiology is established. Diagnosis by smear or culture is generally conclusive. It is possible to determine susceptibility by the Schick test and to confer immunity by toxin-antitoxin mixture. There is a positive remedy known in the early use of antitoxin. It would seem with this knowledge that diphtheria should be stamped out forever!

In South Bend, in 1923, there were 213 cases of diphtheria with sixteen deaths, or a case mortality rate of about seven and one-half per cent. The year before we were not so fortunate: our rate was thirteen and one-half per cent. Now, whose fault is it that such a showing must be made?

The health department provides laboratory facilities, it institutes quarantine immediately upon report of a positive culture. School nurses have found many diphtheria carriers; these are isolated until negative cultures are obtained. I do not know what more can be done unless it would be to immunize the school children at public expense. Should the health department assume this responsibility?

The real fault apparently lies with the parents, who have neglected to have their children immunized and who, when they are ill with diphtheria, delay calling a physician, or misplace their confidence in some brainless medical pretender, who fails to recognize diphtheria when he sees it.

How may we make parents realize it is their duty to protect their children?

The only method of preventing scarlet fever has been isolation of patients. Perhaps the length of quarantine, based upon the erroneous conception that the scales are contagious, is too long.

Scarlet fever is the wildest of the wild diseases. It presents itself in most varied ways. It may be extremely mild or very rapidly fatal. Ordinarily it is a disease of childhood. Lately we have had several adults ill with it. It was taught that one attack conferred immunity, but recently we have seen several patients whose physicians hesitated in making a diagnosis of scarlet fever because they had formerly treated them for that disease.

Often the diagnosis of scarlet fever is questioned because of the apparent mildness of the ailment. From a public health standpoint these mild cases are very important. There is first the difficulty in having them reported and then the added responsibility of maintaining quarantine, because the parents feel their children are unnecessarily confined. These mild cases deserve serious consideration. One cannot safely predict the disease will remain mild for complications ordinarily do not become evident until the second or third week. For this reason I advise that the patient be kept in bed for the full period of quarantine.

How contagious is scarlet fever? No one knows. Many times there is one case in a family and other children escape. We had during the past year four children and both parents ill with the disease at one time. A woman forty-two years of age, who escaped scarlet fever when her own children had it, probably contracted it from a grandchild, whose only symptoms were sore throat, followed by cervical adenitis; he never had a rash and never desquamated. No one can speak with any assurance concerning the contagiousness of scarlet fever, and, after exposure to mild cases, the disease may appear in others in very severe form. We have had recently several deaths from scarlet fever where there was exposure to mild cases in the same home.

There is another problem and that is the missed cases of scarlet fever. Investigation often shows that a child had sore throat, a physician was called, who diagnosed tonsilitis and never went back. Later a rash appeared. In a few days the child felt well and went to school. Here the school nurse found him with a strawberry tongue and peeling hands; so far as we know still infectious. Every physician who sees a patient with sore throat during an epidemic should suspect scarlet fever.

The work of Dick and Dochez may eventually enable us to deal with scarlet fever as with diphtheria, but for the present we must depend upon

the one and only means of prevention at our disposal, prompt recognition and isolation of scarlet fever patients.

In Indiana only a warning quarantine is required for measles. It has often seemed that this is a mistake and that absolute quarantine should be the rule. Measles is not the simple disease of childhood it is reputed to be, especially when it attacks adolescents and adults. There is no definite method of prevention and the health department is handicapped by the general impression that it is not a serious ailment. Scarlet fever is feared as a severe death-dealing disease, yet it is often very mild and, generally speaking, as much damage is done by measles as by scarlet fever.

Some one has said "whooping cough is the nastiest disease of childhood." Most of us agree. The average parent whose child suffers from whooping cough resents any interference on the part of the health department. The disease is long drawn out and keeping the child at home is troublesome. Hence we have comparatively few cases of whooping cough quarantined and about half of them are reported by complaining neighbors. The value of vaccine prophylaxis is questioned. At present our chief means of prevention is by means of quarantine, admittedly imperfect. There is no specific treatment and whooping cough remains "the nastiest disease of childhood."

Typhoid fever is reported occasionally in South Bend. Generally we have been able to trace the source of infection to some other locality. In 1917 we had an epidemic of typhoid in all probability due to contaminated water. At that time many were vaccinated but since then comparatively few. When there is an outbreak of typhoid attention is focused on vaccination. When the typhoid disappears the people forget all about it.

The control of venereal diseases is the most difficult as well as a most important public health problem. During the war a clinic was established in South Bend. Its object was to prevent and control venereal diseases, upon the theory that those ill with them were not receiving adequate treatment, consequently were a menace to public health. Our clinic was made absolutely free to anyone. To some extent this mistake has been corrected and treatment is now refused those who can afford to pay. Whether the clinic has fulfilled its mission in the prevention of venereal diseases, is not demonstrable, for we have no definite information. The venereal disease problem would necessarily remain unsolved unless some concerted effort were made to solve it. For the present the clinics constitute one tangible effort to control these diseases. What the future holds in store cannot be predicted.

Anterior poliomyelitis, encephalitis lethargica and cerebro-spinal meningitis are relatively infrequent. We have no definite information concerning their control aside from quarantine. Influenza is likewise a problem which practically remains unsolved. Other diseases mentioned in the rule of the State Board of Health are but occasionally reported, inasmuch as they do not commonly occur in Indiana.

Pulmonary tuberculosis is reported for statistical purposes only. The State Board has a tuberculosis division, but generally city and county health officers are not very actively engaged in tuberculosis prevention. The reason for this is that some years ago antituberculosis leagues were organized over the state. The societies are, in a measure, a rebuke to the medical profession. Physicians and health departments lagged behind and finally laymen took it upon themselves to solve the problem. These are private organizations subject to no official review, responsible only to themselves. In the main they are controlled and dominated by laymen, for there are comparatively few physicians associated with them. Let no one accuse me of underestimating the value of the work of the leagues. I am glad to give them all the credit due. I must admit, however, that their success is our failure as a profession. The moral I would point out is this: if physicians do not interest themselves in public health problems, philanthropic organizations doing work related to public health will continue to multiply. In my judgment preventive medicine is the job of the medical profession and not of the laity.

As a fundamental principle I believe the state should do for the people only what they cannot do for themselves. There is a state of government responsibility and an individual or personal responsibility concerning public health. I also believe the same principle holds good for charity and philanthropic organizations.

I hope to emphasize the necessity of limiting governmental and philanthropic supervision of the public health to that which is reasonable and necessary and to assume less of the parental relationship. It is time to teach the people that they must protect themselves. If an individual contracts typhoid fever, that is his fault. If a child has diphtheria some parent has been negligent. If smallpox appears some one has taken a chance and not been vaccinated.

I question the advisability of doing free, wholesale vaccinating and inoculating by health departments. Confronted with a smallpox or typhoid epidemic I presume I would order vaccination and provide it for all who would apply. This is the present day method, but it is faulty. Why spend public funds to protect people who should protect themselves?

The get-something-for-nothing idea is very prevalent. We have had people apply for "damages" because they had been in quarantine. This year as never before we have had to provide groceries for families in quarantine. The intention is to supply the indigent but people now suddenly become indigent when placed in quarantine. Free groceries! Free vaccinations! Free inoculations! Shall we encourage paternalism and pauperization, or shall we, as a profession, stand for some old-fashioned common sense, and insist that the individual who is able to care for himself and his family do so.

There are some things just as essential as physical fitness. If we emphasize physical fitness and disregard sound economic principles we face disaster. Any scheme which teaches people to demand or accept something for nothing or something to which they have no right at public expense is economically unsound.

Contagious diseases are prevalent largely because people have not availed themselves of known preventives. Why not place the responsibility where it belongs? I said the prevention of contagious diseases depends upon the harmonious cooperation of the health department, the profession and the laity. To this end permit me to suggest a campaign of education, financed by the health department and the profession. Announcements of the value of vaccination, of anti-typhoid inoculations and other preventive agents could be made. Likewise, periodic health examinations, child welfare and goiter prevention could be stressed. Newspaper men would be willing to carry reading matter contributed by local physicians, particularly if some paid advertising were contemplated.

The plan may seem unethical. It strikes me that it is not. Our own state medical society is endeavoring to reach the public by lectures and newspaper articles. This scheme goes a step further, in that specific recommendations would be made and information given concerning those in the community who are qualified to give acceptable preventive service. The suggestion I make is that we have our campaigns and prevent our epidemics rather than have our epidemics and then our campaigns, as at present and to have the people who are benefited pay for the benefits.

TWISTED COLONS AND INVERTED COMMAS

BY VOLVULUS
A STUDY IN PRINTER'S INK

Symptomatology: The symptoms of this painful disease consist principally of attacks of abdominal colic of sudden onset. The syndrome may be encountered daily in any editorial office—Sundays and holidays included.

Etiology: The cause of the disease can be

unerringly traced to noxious material carelessly left in manuscripts by heedless authors. Such materials is usually found in the following terms:

1. Ill-prepared copy marked "Dictated, but not read." (This noxious material frequently induces emesis.)

2. Sketchy notes used for a spoken address and not re-written in manuscript form. (Emesis is often projectile in type.)

3. Twenty-page articles containing two pages of information. (Dyspnea and cyanosis.)

4. Crude abbreviations: Soda-bicarb, the Dr., P.S.P. test, R kidney, L.K., Sec'y., Ass'n., %, etc. (Vertigo and diplopia.)

5. Common names in capitals: Measles, Breakfast, Digitalis. (Opisthotonus and nystagmus.)

6. Profuse underlining, calling for italics, "black caps," and loud speakers. (Aphonia and laryngismus.)

7. Footnotes that should appear in the body of the manuscript. (Perspiration, chills.)

8. Left-hand spelling: Rockafellow Institute, exema, volumn, illio-cecal, posteriorally, etc. (Tracheal edema.)

9. Illustrations not furnished with titles. (Petit mal.)

10. Single-spaced typewriting, which precludes correction of any of the aforementioned errors. (Visceroptosis and grand mal.)

Treatment: The treatment of this grave and painful condition is chiefly prophylactic. There is need of more careful and considerate authorship. Fatal cases of this type of poisoning would occur less frequently if authors would seek and remove noxious material before releasing their manuscripts for public consumption.

In connection with such prophylaxis, a few "Suggestions to Authors" suggest themselves:

a. Send in your top copy; not a smeary carbon.

b. Write on whole sheets, not half-sheets of paper.

c. Write your name on every page.

d. Furnish a title for each illustration, but do not write it across the face of the picture.

e. Make your references clear. Do not quote "Dr. Smith," but quote "Dr. Iota Magnus Smith."

In giving references, do not conclude them with

a penciled question mark. Do a little more work on the job.

f. In submitting a manuscript based on a paper read at a meeting, state in a footnote where and when the address was given. Thus—

Read at the Annual Meeting of the Colorado State Medical Society, October 7, 8, 9, 1924.

This footnote should appear at the bottom of the first page of the manuscript.

g. Conclude all manuscripts with a brief summary.

h. Do not plan to make the final draft of your paper on the printer's proof. Use the proof only to show printer's errors.

i. Prepare bibliographies and references with care.

Give the author's initials or Christian name as well as his surname. Follow with a colon (:) and then with the name of the book or article.

In the case of a book, give the edition, unless the edition referred to is the first, then give the page referred to. Follow with the place and year of publication, and the name of the publisher.

In the case of an article, follow the title with the name of the journal. If abbreviations are employed, use those approved by the American Medical Association. (See "Suggestions to Medical Authors and A. M. A. Style Book," supplied by the American Medical Association, 535 North Dearborn Street, Chicago, at a cost of twenty-five cents, or lent without charge by Colorado Medicine). Follow the name of the journal with the year of publication, and then with the volume and page number.

Follow the general form given below:

1. Lovett, Robert W.: The Treatment of Infantile Paralysis. Second edition, page 78. Philadelphia, 1917. P. Blakiston's Son & Co.

2. Timme, Walter: Lectures on Endocrinology, pp. 488-62. New York, 1924. Paul B. Hoeber, Inc.

3. Favill, John and Charles F. Rannick: A Case of Family Periodic Paralysis, Archives of Neurology and Psychiatry, 1924, vol. 11, p. 674.

4. Joslin, Elliott P.: Diabetic Problems of Today, Jour. Am. Med. Assn., 1924, vol. 83, p. 727.

—Colorado Medicine, October, 1924.

POSTOPERATIVE VOMITING, DISTENTION AND PERITONITIS

After three years' experience with the use of the duodenal tube in preoperative and postoperative abdominal conditions, W. L. Brown and C. P. Brown, El Paso, Texas (*Journal A. M. A.*, Aug. 9, 1924), have become convinced of its almost endless possibilities for good. In the majority of cases they have used the Jutte tube with a small metallic tip or sinker, passing it through the nose. The tube accomplishes several objects: 1. It relieves conditions due to gas and the regurgitated contents of the stomach. 2. It affects interrupted or continuous lavage of the stomach and in some cases of the duodenum. 3. It gives relief from nausea. 4. It makes possible the free

drinking of water and thereby relieves that most distressing symptom, thirst. 5. It permits transgastric feeding. 6. It relieves toxemia. 7. It becomes a port of entry for all kinds of medication. 8. It improves the feelings of the patients; they often beg for its return after they have once experienced the relief afforded by its use. The tube should be used before operation in all cases of prolonged vomiting from gastric ulcers, pyloric obstruction, marasmus from prolonged starvation, and other cases in which there are indications for the administration of fluids and nourishment. The duodenal tube, the administration subcutaneously of large quantities of 3 per cent salt solution, and the application of massive, hot, moist compresses of Ochsner, kept continuously hot with an electric pad, constitute a treatment of real value.

THE JOURNAL
of the

Indiana State Medical Association

Devoted to the Interests of the Medical Profession of Indiana

ALBERT E. BULSON, JR., B.S., M.D., F.A.C.S.
Editor and Manager

Office of Publication, 406 W. Berry St., Fort Wayne, Ind.

OCTOBER, 1924

EDITORIALS

THE INDIANAPOLIS SESSION

The annual session of the Indiana State Medical Association, held in Indianapolis last month, was the most successful session in the history of the Association. All records were broken in point of attendance, character of the program and interest. Over a thousand members registered, and it is known that there were many members who for one cause or another failed to register. Over a hundred doctors from outside of the State attended, and there were over three hundred ladies present. Thus the actual attendance at the session was somewhere between fifteen hundred and two thousand. Very naturally the largest attendance came from Indianapolis, but the balance of the State was well represented as only three county societies failed to be represented by some of their members.

The arrangements were quite satisfactory inasmuch as all meetings, excepting those devoted to sectional dry clinics held at the hospitals, were in the Assembly Room of the Claypool Hotel which accommodates a large audience. The local committees did their work well, and the wives of the Indianapolis physicians deserve praise for their attention to the visiting ladies. Instead of the usual smoker a stag theater party was given on Wednesday evening, and the "Red Pepper Revue" turned out to be a very creditable vaudeville performance.

The scientific program was of unusual excellence, and with the exception of one essayist who had to come from a long distance the program was carried out as advertised. All of the papers were of exceptional merit, as it was expected they would be when given by noted clinicians and teachers. The addresses or talks illustrated by moving pictures or lantern slides were especially interesting and brought forth general favorable comment. While the presentation of an all-star program by invited guests was an innovation and adopted by the Scientific Committee with some reluctance, yet it proved to be a great drawing card, and on every hand met with endorsement on the part of those in attendance at the session. It was not expected that the plan would create a precedent to be followed in the future, and, in fact, next year the old order will prevail, but the "all-star program" has served the purpose, pointed out so frequently in *THE JOURNAL*, of stimulating

interest and urging our own membership to better work. The time has passed when our Association programs should be burdened with mediocre papers, and the man who aspires to a place on the program should have something to say that is really worth listening to by the members of the Association, and the subject should be thoroughly worked up before presenting it.

The work of the House of Delegates was carried on without friction and without the tedious debates that have marked the proceedings of the House at some previous sessions. We still feel that the House can expedite matters and will be less inclined to take snap judgment if the reports of standing committees and other business matters which place the Association on record in the appropriation of money or in adopting any policy, are referred to reference committees before being subjected to debate. Such a plan does not preclude the possibility of having the recommendations of the reference committees discussed and disapproved. It does, however, provide for a more deliberate analysis of the propositions that are brought before the House for serious consideration than can be given them on the spur of the moment.

Among some of the important actions of the House of Delegates was the approval of the Councilor's recommendation of the excellent work done by the Bureau of Publicity and provision for its continuance with an increase of the appropriation for the work. The House also approved the recommendation of the Council to the effect that the Bureau of Publicity, with the co-operation and sanction of the advisory committee of the Council, employ such help as required to co-ordinate the activities of the general secretary's office with those of the Bureau of Publicity. The House also passed resolutions endorsing the action of the American Medical Association in trying to secure, (1) a reduction of taxation of physicians under the Harrison Narcotic Law; (2) relief from the ruling of the Commissioner of Internal Revenue that physicians shall not be permitted to deduct from income tax the expenses of attending medical meetings and doing postgraduate work; (3) the proper labeling of lye and other caustic substances through Federal and State legislation; (4) abandonment of the plan for the reorganization of the Federal Health Activities; (5) legislation controlling the sale of harmful substances in cosmetics and wearing apparel. The House voted its opposition to the resolution condemning that portion of the prohibition act concerning the confidential relationship between physician and patient.

Another important action is the change in the time of the meeting of the House of Delegates on the last morning of each annual session. In order to avoid conflict with the scientific meetings next year the House of Delegates will meet on Friday morning at 7:30 at a breakfast during which the

election of officers and other business will take place.

Some much needed amendments to the constitution and bylaws were offered and after being published twice in *THE JOURNAL* during the year will come up for adoption at the 1925 session.

The House refused to accept the recommendation of the Council that the Committee on Hospital Standardization be abolished. It seemed to be the consensus of opinion that the medical profession of the State should be the censor of its hospitals and approve or disapprove of their organization, methods and policies, though in the discussion the fact was lost sight of that the hospitals that desire to secure nurses and interns and have their courses recognized must meet with the approval of the hospital committees of the American Medical Association or of the American College of Surgeons, irrespective of any action that may be taken by the Indiana State Medical Association. Furthermore, it is not alone the stamp of approval of the State Association that is required or even necessary, but the approval of the national organizations, for the medical colleges and boards of licensure require some standard other than that established by the State for their guide. Therefore, the work done by a local committee while perhaps very worthy and helpful in promoting better hospital organization and management, really is superfluous.

The Council received reports concerning the condition of the medical societies in the various councilor districts and discussed various problems connected with organization work. They also approved the work of the Bureau of Publicity and recommended a continuation of it, with slightly increased appropriation. The proposition to coordinate the work of the general secretary of the Association with that of the Bureau of Publicity received favorable consideration, and a committee was appointed to investigate the matter and report at a subsequent meeting of the Council.

The public meeting at the Cadle Tabernacle was a great success. It probably was the largest audience of lay persons ever gathered together for the one purpose of listening to addresses on purely health problems. It was a tribute to the work of the Committee on Arrangements, though perhaps the nature of the program and reputation of the speakers had much to do with drawing the crowd. The addresses were practical and listened to with interest by the large audience present. In fact it was noted that during Dr. Mayo's rather technical address, and the last one on the program, scarcely a single one of the vast audience present left the room.

In the selection of Dr. E. M. Shanklin of Hammond, as president for the ensuing year the Association is honoring one of the active workers of the Association who for years has been a forceful representative in all of the policies of the Association.

Marion was selected as the place for holding the 1925 session, and the medical profession of that city guarantees splendid care for the Association and its activities.

A NEW TYPE OF HOSPITAL

Some time ago we commented on the fact that a combined hospital and hotel was being erected in New York City, and recently we have received some data concerning the hospital which we think worthy of reproduction in view of the fact that it throws an interesting sidelight on the question of hospital construction, management and services. It must be admitted that most hospitals are far from being desirable places for the patient who owns and loves a comfortable home where he has something more than necessary conveniences. It also must be admitted that the human factor is largely lost sight of in the ordinary hospital, and because this new project takes that matter into consideration we are reproducing the literature concerning the new type of hospital which is being built in New York, which is as follows:

More than 100 physicians and surgeons of New York have combined to relieve the lack of hospital accommodation for private patients and as a result Hudson Towers hospital-hotel is now nearing completion and will be opened early next year, representing a capital investment of \$3,500,000.

New York takes ample care of charity patients for there are more than 20,000 beds in the various hospitals but there are but 750 beds for private patients. There are numerous private hospitals or sanitariums which are under no sort of supervision, but they do not begin to supply the sort of care private patients demand.

Of the 7,000 doctors in New York City, only about 1,000 have any connection with hospitals and others cannot attend their patients during hospital treatment. There should be an open institution where all ethical doctors can care for their patients and it is to fill this need that Hudson Towers is being constructed.

The idea of an "open" hospital was conceived by Dr. Leo Buerger, attending surgeon at Mt. Sinai Hospital and staff member of the Post Graduate hospital. According to Dr. Buerger it is no longer practicable to care for sick people at home. The cost of living and the situation in domestic service has driven a large number of people to live in hotels where there are not the facilities for caring for sick people. Where can the young woman, who is not a charity patient, go when her baby is born? There are some hospitals which have private rooms available for this purpose, but all too few for the demand. "In Hudson Towers," said Dr. Buerger, "the mother will be able to stay under same roof with her sick child, and the father can occupy a suite with his wife and new born child. There are to be suites

for the accommodation of relatives and for patients who feel they can afford them for themselves. The doctor, or nurse, will of course dictate the length of time a relative may stay in the room with a sick person, but this will be based solely on the condition of the patient and the effect of companionship on this state. There will be no heart-breaking hospital rules to banish the worried relative, to leave the sick child crying for its mother or send the troubled wife to her desolate home while her husband lies suffering miles away. In other words, the new conditions will substitute sunshine for sombreness in the environment of a sick person, a psychological condition so long advocated by Dr. Alexis Carrel of the Rockefeller Institute.

"As to the furnishings, they'll be spotless and will not be ridiculously bare and cold. Did you ever run your finger over one of those bare hospital walls, those walls with rounded corners which conform so precisely to sanitary ideas? Just try it sometime and you'll find you are drawing a line in dust. You can't keep dust off any wall in New York unless you wash it every day. Its being plain and smooth and colorless does not mean that it is dustless.

"But infection doesn't come from room furnishings. It comes from faulty sterilization or a poorly organized operating room. We're going to have hangings in our rooms, not velour hangings, of course, but washable hangings, and pictures on the walls. Those bare walls of most hospitals are just a part of the sanitary pose, they don't mean much. We'll have bare floors, probably of rubber and probably we'll have iron furniture, but it will be painted in soft, light colors, like furniture in country houses.

"The distinctive feature that we are aiming at is the human factor in the care and treatment of a patient, on the physical side combining the comforts of a private home and the service of a first-class hotel."

EDITORIAL NOTES

DEAR DOCTOR:

THE JOURNAL and the Cooperative Medical Advertising Bureau of Chicago maintain a Service Department to answer inquiries from you about pharmaceuticals, surgical instruments and other manufactured products, such as soaps, clothing, automobiles, etc., which you may need in your home, office, sanitarium or hospital.

We invite and urge you to use this Service.

It is absolutely FREE to you.

The Cooperative Bureau is equipped with catalogues and price lists of manufacturers, and can supply you information by return mail.

Perhaps you want a certain kind of instrument which is not advertised in THE JOURNAL, and do not know where to secure it; or do not know where to obtain some automobile supplies you need. This Service Bureau will give you the information.

Whenever possible, the goods will be advertised in our pages; but if they are not, we urge you to ask THE JOURNAL about them, or write direct to the Cooperative Medical Advertising Bureau, 535 N. Dearborn St., Chicago, Illinois.

We want THE JOURNAL to serve YOU.

WE are inclined to believe that the only persons doing any active work in connection with health

service of any kind that are not paid for the time and effort are the doctors. Enough said!

THE next annual session of the American Medical Association will be held at Atlantic City, May 25 to 29, 1925. This is from one to two weeks earlier than the earliest date usually selected for the Association's session.

THE next session of the Indiana State Medical Association will be held in Marion the last Wednesday, Thursday and Friday, of September, 1925. The session will be under the presidency of E. M. Shanklin, of Hammond.

WE were delighted to see so many medical men from outside of Indiana at the Indianapolis session. We hope that they were well entertained socially, and we know that the scientific treat was all that they could ask.

As our worthy secretary well says it is unfortunate that some county medical societies in Indiana, though represented by attendants at the annual sessions of our Association, fail to send delegates. More attention should be given to this matter.

IN this number of THE JOURNAL, in the advertising page devoted to the Association's affairs, we publish a list of the new officers and the standing committees so far elected. Some of the committees are appointed by the president and these will be announced later.

AN appropriation of fifteen hundred dollars has been given the Legislative Committee of our Association. We wonder if most or not all of this might not be saved by co-ordinating the work of the Committee with that of the Bureau of Publicity.

THE registered attendance of 1,012 members at the annual session of our Association is a record-breaker. The Scientific Committee and the Committee on Arrangements promised an unusual session and they made good. Those who attended were not disappointed.

TALK about lay influence and domination in some of the health work! Read this from a layman who bosses the Children's Bureau of Kansas City, in the *Child Health Magazine* of September, 1924: "The examinations are made by pediatricians whom we have trained to render *our* kind of health service."

IT was a real pleasure for the members of the Association to greet Dr. G. W. H. Kemper, of Muncie, the aged but nevertheless youthful ex-president of the Association. For many years he was an active worker in the Association and he

still takes a keen interest in all of its affairs. May he live to be with us for many years to come!

THE Bolshevistic government of Russia has placed the ban on kissing. Like Joshua who commanded the sun to stand still they have attempted something that will end in failure. From a sanitary and health standpoint kissing may be dangerous, but you might as well try to stop the Niagara as to attempt by any sort of legislation, threats or advice, to make the practice extinct.

MARION has been selected as the place for the next session of the Indiana State Medical Association. Dr. George R. Daniels, one of the active workers of the Association, is mayor of Marion, and he promises that the Association will own the town during the next session of the Association. Perhaps it will not be too much to ask that the Marion traffic police go to sleep on the job during the three days of the session.

MAYOR LEW SHANK gave his very hearty endorsement and active support of the Indianapolis session of the Indiana State Medical Association, and he asked the Police Department, the Board of Health, and all of the city agencies to co-operate with the Association in every way possible to make the session a success. Shank's co-operation was not of the perfunctory type so often seen in officials, but was active and sincere.

EVERY year there is a large attendance of ladies at the annual sessions of our Association and this speaks well for the committees who have had the entertainment of ladies in charge. The attendance of ladies should be encouraged, as it helps to place the entire medical profession on a better social status for there can be no doubt of the fact that the ladies add much to the success of every session.

A BREAKFAST meeting for the House of Delegates on the last morning of the session will be an innovation. It ought to bring out a large attendance, but breakfast at 7:30 may be as effectual as mother's morning call of her darling son who answers "yes" and then turns over for another nap. Perhaps a good way of bring out an attendance would be to establish a rule that food will not be served to late comers, and that under any consideration the business affairs of the House will start off immediately on the hour set.

HEALTH education in our schools is receiving a lot of attention on the part of educators, and we are not disposed to condemn the idea but we are opposed to the kind of health education that is being given out by a lot of school teachers who are proselyting for the Christian Scientists, chiropractors, and other medical pretenders. All health education in our schools ought to be under

the supervision of health officers who are reputable medical men, and not given by teachers who have fantastic and inconsistent ideas concerning health and its preservation.

AT the Indianapolis session the presiding officers did very well in holding the speakers to the allotted time but there is considerable criticism concerning the overlapping due to the fact that some speakers do not confine themselves to the time allotted to them. In the first place, no speaker should expect to take more time than has been assigned to him, and it is nothing short of imposition for him to do so. On the other hand, a chairman should have no hesitation in rapping down any speaker who oversteps the bounds of propriety and treads upon the rights and privileges of others who are to follow him.

A POST election campaign to acquaint the incoming legislators with proposed legislation pertaining to medical practice and public health has been proposed by our committee on Public Policy and Legislation. Incidentally it may not be amiss to remind the members of our Association that there are certain candidates for the legislature who are known to be opposed to the regular medical profession and who cannot, under any sort of possible post election influence, be made to see matters as we do. We will not make these men any more bitter enemies by openly attempting to defeat them in the election.

A POPULAR author, writing for the benefit of the public, says that lay persons should not possess family medicine chests but that a clinical thermometer, a hot water bottle, an ice bag, a standard laxative, an antiseptic solution, some baking soda or essence of peppermint for acid stomach, some common salt to use in gargle or douche, and a first aid kit seem to be about the limit of what is required. We would like to suggest that most families could do without the clinical thermometer, for in a great many instances a wrong interpretation of the findings of a clinical thermometer causes lay persons much worry and apprehension. Most of the families who have clinical thermometers would be better off without them.

THE American Medical Association, through its Board of Trustees, has placed its stamp of disapproval upon all efforts to reorganize the Federal Health activities and this action is brought about through a well deserved fear of bureaucratic medicine with all of the evils that go therewith. There is such a thing as having too much politics in medicine and already there is a considerable political influence at work in the public health service which is tinctured with a sort of autocratic policy that promises evil results in the future. It is just as well that our State Association did take

cognizance of this fact and go on record as approving the opposition so forcefully expressed by the A. M. A.

THE political pot is boiling as we go to press. The State ticket is of particular interest to medical men because a well known and reputable doctor is one of the candidates for governor. There is much to commend him for the position he seeks if we take into consideration the fact that at every session of the legislature there is much legislation up for consideration which has to do with some phase of medical practice or health problems, and it is reasonable to expect that a reputable practitioner of medicine possessing the high aims and traditions of the profession would look upon all legislative matters coming to his attention in a manner that would do credit to one of honorable motives.

IN Vienna a man was convicted of a criminal offense and required to pay a fine and cost of medical treatment for knowingly transmitting syphilis to a girl. In pronouncing judgment the court emphasized the fact that a man knows that he must be cured before entering into sex relationships, and that by knowingly neglecting this fundamental precaution the defendant had committed a serious offense. The circumstance ought to materially aid the Austrian health officers in enforcing the compulsory treatment of syphilis, and to have a deterrent effect upon the dissemination of syphilis by infected persons who should have a wholesome fear of prosecution and judgment for damages in the courts. It is regretted that we can't have some action like that in this country.

MANY excellent books on the care of the health, written by trustworthy medical men, can be obtained by lay persons. Doctors often find it necessary to give families much advice that is rather commonplace, and sometimes he can be saved much time and breath if he recommends that some good books on the care of the health be purchased and read. These books may be obtained either through the A. M. A. or by recommendation of that Association. They do not in any sense teach patients how to prescribe for themselves or to become self-druggers, but they do give a lot of useful information concerning the commoner things that should be done by individuals in order to assist in being healthy and well.

It is time to consider seriously the question of securing amplifiers for use at the sessions of our Association. While many speakers have voices that carry well, yet not infrequently a medical man with a real message to the profession has such a poor voice and such poor delivery that only the few who are right in the front seats get anything out of his address. In such instances

an amplifier would prove its value by enabling every one in the audience, even those in the back seats, to get every word of the address. When considering the subject of an amplifier we ought also consider the question of owning a first-class lantern and opaque projector so that we will not be dependent upon others for these necessary adjuncts to a successful session.

MAGIC eye drops, costing twenty dollars per drop, and represented as a cure for cataract, is a swindle being worked in Ohio according to the Ohio State Medical Board. The celebrated "doctors" are operating under the guise of making a survey for the Rockefeller Institute. We may add that a similar swindle is being imposed upon credulous old people by some supposedly reputable eye specialists who use eye drops for the absorption of cataracts, oftentimes when cataract does not exist and the failing vision is due to other causes. Some general physicians who ought to know better even prescribe *Succus Cineraria Maritima*, a fake that we have exposed repeatedly in *THE JOURNAL*. Lay persons are not the only ones to follow false prophets.

THE American Medical Association may have condemned that portion of the Prohibition Act which concerns the confidential relationship between physician and patient but the Indiana State Medical Association did not feel warranted in approving the action of the parent body. Perhaps this was not because our State Association has any foolish notions concerning the propriety of regulating the liquor traffic or regulating the amount of alcoholic beverages which members of the medical profession may prescribe, but it does represent the feeling that here in Indiana where we have absolute prohibition and even doctors are not permitted to prescribe alcoholic beverages, it seems folly to pass a lot of resolutions which do not interest us in one way or another as long as Indiana is presumably bone dry and likely to remain so until Gabriel blows his trumpet.

SEVERAL Indianapolis firms catering to the wants of physicians were especially courteous to those who attended the Indianapolis session of the Indiana State Medical Association. The Swan-Myers Company sent letters to the entire membership of the Association calling attention to the necessity of attending medical meetings in order to keep abreast of the times and offering to secure parking spaces for automobiles, check light baggage and parcels, and arrange for hotel accommodations for those attending the Indianapolis session. Likewise the Eli Lilly Company not only served a splendid luncheon for ladies, but distributed complimentary packages of toilet articles for which every woman finds use. Some of the other commercial houses catering to the wants of the physician were likewise helpful in

entertaining those who attended the Indianapolis session and looking after the wants of visitors.

THE editor of THE JOURNAL desires to announce that he has solicited the co-operation of various agencies in the State which have to do with any and all phases of public health matters in bringing about a better understanding of the aims and policies of these agencies through the publication in THE JOURNAL of articles or perhaps the establishment of regular departments devoted to those particular agencies. This would include the Medical Department of the Indiana University, the State Board of Health, the Board of Medical Registration and Examination, and any other agencies having to do with any phase of medical practice or public health work. Success has not crowned the efforts to get as much material of this character as it was hoped would be furnished, yet the possibilities for the future are better, and the members of the Indiana State Medical Association may in the future have more direct information as to the work done by these several agencies.

It may seem strange that New York City, with its tenement districts and populated by hundreds of thousands of ignorant foreigners, should have the lowest death rate from diphtheria of any city in the United States, but when we remember that New York City has one of the most aggressive and progressive boards of health, it is easy to understand why the statistics should be so favorable. Furthermore, the work that is being accomplished by the board of health of New York City is worthy of duplication on the part of any American city, and, as stated by the *Journal of the A. M. A.*, it remains for the health officials and physicians in cities which continue to have high death rates to show that similarly good results can be achieved by the intense application of our scientific knowledge. A marked reduction in diphtheria mortality in the United States undoubtedly can be achieved in the next few years by suitably organized effort.

THE editor of THE JOURNAL has received a notice concerning an impostor preying upon members of the medical profession which reads as follows:

A man, named George Saunders, weighing about 220 pounds, 5 feet 8 inches tall, about 40 or 50 years old, is calling on x-ray men, giving checks on an Anderson Bank signed by a brother, Willis Saunders. These checks are of a larger amount than the x-ray bill, and the man pockets the difference. Checks are returned as worthless. This man claims to be a stock raiser, specializing in pure bred cattle, and has the appearance of having lived in the open. He gives his home as Pendleton, and has a scar on his hand.

We may add that either this man or some one else has been calling upon other than laboratory men and receiving services for which he tenders a

worthless check for more than the amount of the charge. It is just as well for doctors to avoid cashing the checks of strangers, and sometimes it is quite proper to find out whether the checks from acquaintances are good before cashing them.

WE have it on authority that a part of the gasoline tax collected from automobilists is thrown into the general fund to meet general expenses of the state, perhaps the junketing tours of officers for all that we know, or to buy pink lemonade for ex-Governor McCray, and we feel that the automobilists ought to protest vigorously against such use of money that is intended for much needed road construction and repair. Now we have it from the Board of Medical Registration and Examination that, as evidenced by the letter published in this number of THE JOURNAL, some of their funds are diverted to the general fund. Nothing can be more unjust, for the money that is paid in by candidates for medical licensure in Indiana should be used for the expenses of the Board and to assist in the enforcement of the medical practice act. Now the question is, "What are we going to do about it?" Our Committee on Public Policy and Legislation ought to work to secure some relief.

A SERIES of articles on glandular therapy has been prepared under the auspices of the Council on Pharmacy and Chemistry of the A. M. A. As stated by the *Journal of the A. M. A.*, no other phase of therapeutics is subject to more abuse and more fantastic exploitation. Our knowledge of the physiology and pathology of the ductless glands is lamentably inadequate. Facts concerning the functions and disorders of the ductless glands should be scientifically established, and the series of articles now being printed in the *Journal of the A. M. A.* represent the actual facts thus far available concerning the physiology of each of the glands of internal secretion, the pharmacology of such products as have been derived from it, and the uses of such products in the treatment of disease. Readers will no doubt be surprised at the wide variance between the simple statements of established knowledge and the remarkable claims being made by the commercial houses which depend upon the sale of glandular preparations for their existence.

THE amount of literature pertaining to health problems that comes to our desk almost daily seems to be increasing in amount. Much of it is duplication, not only in the information contained but of material sent from more than one agency. We cannot help feeling that this is an enormous waste of time, effort and expense that could be avoided by the co-ordination of these enterprises. We have no quarrel with the lay organizations that are attempting to improve public health, but they ought to be conducted under the advice of

reputable and competent medical men, and their activities so controlled and managed as to avoid overlapping with other organizations doing similar work. In the final analysis it seems to us that these organizations could do no better than co-operate with our state boards of health and state medical associations. A perfectly wonderful work could be accomplished by combining efforts, and we are under the impression that under the present plan pursued a large portion of the effort is wasted.

THE New York State Department of Health calls attention to the fact that health articles containing advice on how to keep well are now copied as to style by the manufacturers of cure-alls and fake remedies of every description. Under these circumstances it is difficult for the public to recognize the true from the false and be able to protect itself from the snares of the fakir. Furthermore, there are certain lay magazines that are mouth pieces for cults or sects, and occasionally a metropolitan newspaper will carry a health column edited by a man of no professional standing. All of this, as we have pointed out before, indicates the need of attention on the part of our medical organizations to the question of bringing influence to bear upon the editors and publishers of lay newspapers and magazines of every character as to the importance of having any and all articles on health or how to keep well edited by individuals having the endorsement of our medical societies, institutions of learning, or boards of health as being trustworthy.

WITH the onset of changeable, stormy and cold weather the average man and woman, who perhaps has enjoyed the health-giving practice of living more or less out of doors, begins to don heavier clothing and hunt the fireplace and be guilty of more or less sedentary habits, the breathing of vitiated atmosphere, overeating, and other things that have a tendency to break down resistance and breed disease. It is quite true that doctors profit by the colds and other illnesses brought about by this failure to pay more attention to hygienic rules, but as it is the province of doctors to advise people how to keep well, they should emphasize the importance of outdoor life in the winter as well as in the summer, for it can be made just as comfortable as any other time if the person is dressed for the part. This does not mean over-dressing, with all of its ills, for even on the coldest day exercises start the circulation and the body is comfortable with medium weight clothing. Our patients need to know that the great outdoors in winter as well as summer is the best sanatorium that could be patronized.

AT the San Francisco session of the Association in June, 1923, Dr. George H. Simmons, for more than twenty-five years editor of *The Journal*

and general manager of the American Medical Association, signified to the Board of Trustees his desire to relinquish the responsibilities which he has so successfully borne. At the session held in Chicago last June, he was tendered a testimonial banquet at which leaders in medicine expressed appreciation of his great service in advancing medical education and medical science in America. A portrait was presented, which now hangs in the assembly room of the headquarters building, erected during the administration of Dr. Simmons. As indicated in the minutes of the Board of Trustees, he was elected Editor and General Manager Emeritus to take effect at such time as he might choose; last week he departed for an extended trip to Europe and India. *The Journal* and the extensive enterprises of the American Medical Association will always be a monument to the editorial and administrative genius of Dr. George H. Simmons.—*Jour. A. M. A.*, Oct. 4, 1924.

WE take our hats off to the department of health of the State of New York. Wonderful things are being accomplished by that organization. Of particular interest is the health news service which has no counterpart in this country. A periodical known as *Health News* is published every week, but aside from that there are almost daily letters to the press containing much valuable information concerning individual and community health written in a manner that can be readily understood by lay readers. What a fine thing it would be if every state in the Union had a similar service, and a finer thing if the lay press could be induced to use the articles regularly. We have attempted something of the sort in Indiana and accomplished a great deal of good, but we still have a great work before us in getting the newspapers of the State to handle the copy that is being sent out. Above everything else we need to co-ordinate our efforts with those being put forth by other agencies, notably the State Board of Health. There is no reason why there should be duplication in the work, and much time, effort and money can be saved if we can unify our efforts.

EVIDENTLY the governor of Maine is opposed to animal experimentation and does not hesitate to speak his piece. One of the Maine physicians publicly defends animal experimentation in answer to his governor's attitude, and the arguments advanced are logical and rational as compared to what ordinarily is put out by the antivivisectionists which usually are founded on maudlin sentiment only. It is just as well to determine the views of men running for public office before deciding to elevate them to positions where they may do a great damage to scientific advancement and endeavor. The medical profession should

place in the hands of the public a complete statement of facts concerning animal experimentation or any other enterprise that has for its object the saving of human lives when such measures are attacked by men in public office. If the governor of Maine is radically opposed to animal experimentation which history shows has been of untold value in promoting means of saving human life, then he is unfit for holding an office in which by a ballot he may do great harm to the cause of health and its preservation, and the public should be fully acquainted with the situation.

THE Abrams treatment, though long ago pronounced a fraud by a body of reputable and trustworthy medical men who formed a committee to investigate its merits, and quite recently also pronounced a fraud by a committee of lay persons selected for the purpose by the *Scientific American*, still is utilized by a considerable number of doctors some of whom are affiliated with our regular medical societies, and the most inconsistent and astounding claims for the treatment are given to patients. One of the latest humbugging yarns comes from a user of the Abrams treatment, who has been having a very large following and profiting at the expense of the credulous, is that no tonsils under any condition whatsoever should be removed inasmuch as they contain a secretion which is inimicable to the development of tubercle bacilli and the Abrams treatment not only encourages the formation of this beneficent secretion but promotes absorption of all inflammatory products. The strange feature about this whole proposition is that many supposedly intelligent people "fall" for that kind of bunkum. Incidentally the physician in question is a member of a local medical society, and we believe that he should be expelled for practicing quackery.

MUCH has been said concerning our failure to reduce the prevalence of venereal disease, and the cause has been attributed to lack of education of the public concerning venereal disease and its prevention. Probably the basis of our failure to accomplish more is the general attitude of the lay press and educators in sex hygiene in considering venereal disease a topic that must be handled with gloves for fear of offending the sensibilities of many people. We will never accomplish all that should be accomplished until we place before the public plain facts concerning the venereal disease problem, and right here we wish to compliment Dr. W. A. Pusey, of Chicago, president of the American Medical Association and one of the leading syphilologists of the country, who before a lay audience of more than twelve thousand people assembled in Indianapolis on the invitation of the Indiana State Medical Association, discussed venereal diseases in a way that left no room for doubt as to the facts. Perhaps it is the first time in the history of medicine that a lay

audience has been told the unvarnished truth concerning venereal diseases and the manner of their spread, but in such a way that no sensible individual could take offense. May we have more of such outspoken discussion of the venereal problem.

A CELEBRATED doctor who specializes in children's diseases had brought to him for examination and for advice the child of a less celebrated medical man. The child gave every evidence of being undernourished, was suffering from a nervous disorder, and displayed a disposition that is so frequently found in what are commonly known as spoiled children. In obtaining the history the fact was brought out that the child had an inordinate taste for sweets which was not controlled, possessed a capricious appetite which was indulged, and that from an early age coffee had been a regular feature of the meals. With a shrug of the shoulders the eminent specialist said to the father of the child, "As a doctor you are a failure if you are as ignorant in recognizing the cause of disease in your patients as you are in the case of your own child, for you must know that a regular and plain diet and the avoidance of coffee and sweets is an edict that must be followed in the rearing of any child." How often is the average doctor consulted by a fond mother concerning the ill health of her precious darling and a few doses of medicine given when perhaps the best advice would be to place the youngster under a proper dietary and hygienic regime, and perhaps add to it an occasional trouncing when discipline rather than fondling is indicated.

SOME of the pseudo-medical cults are publishing and distributing gratuitously to the public books which discuss their peculiar forms of treatment, and ridiculous and far-fetched claims are made concerning benefits to be derived. Perhaps it is not possible to prevent this, but it is possible to prevent the spread of their propaganda through lay publications providing sufficient influence is brought to bear upon the editors and publishers of lay publications and the fact is pointed out that trustworthy information for the public eye should have the endorsement of our recognized institutions and societies of learning and their representatives. It should be patent to any lay editor that not much reliance can be placed upon information advanced by the uneducated and illy trained, and it requires little comprehension to see the difference between the qualifications of a regular practitioner of medicine and that of any of the pseudo-medical cults whose education, training and experience is of the exceedingly superficial kind and does not bear the light of investigation. Consequently when the chiropractors write to the editors of lay publications and say that they will be glad to furnish information for a health column, and couple this with the suggestion that the offer is made with the idea in view

of giving the public some idea of scientific advancement, the offer should be considered as one of brazen effrontery in view of all the facts concerning the inconsistency of such practice.

THE American Red Cross has equipped a first aid demonstration car, manned by a corps of experts, which is touring the country, complimentary service of the railroads, and in different populous communities giving demonstrations of practical methods of first aid in local schools, to shopmen, railway employees, policemen, firemen and the general public. This comes at a time when the annual toll of accidents in the United States exceeds the American casualties during the World War. Officials of the Red Cross point out that contrary to the general impression, official statistics show that the majority of our terrible annual toll of accidents happen in or around the home. Inability to perform even the simplest technic of first aid before the doctor arrives, too often results in the death or permanent disability of the injured person. Therefore these first aid demonstrations should be of interest to the public and especially the housewife who oftentimes is the first one called upon to render services to children, domestics and others in the household. In the industries, first aid service is necessary if injured employees are to be given the attention they deserve. The Red Cross is to be commended for its action in sending a demonstration car to so many localities throughout the United States, and the enterprise should have the encouragement and support of officials of every kind, and the public urged to take advantage of the demonstration given.

LAST spring *The Journal* published two articles on one Pierson W. Banning, of Los Angeles, who perpetrated an international hoax in exploiting his book "Mental and Spiritual Healing" which was said to be a "Text Book for Physicians and Metaphysicians." Banning, it may be remembered, sent out a story to the medical and lay press to the effect that he had been awarded a prize of \$12,000 by the trustees of the "Benjamin Franklin Fund of London" because of the literary and scientific accomplishment exhibited in his book. *The Journal* exposed the humbug, showing that there was no Benjamin Franklin Fund and that the whole press agent work was a tissue of lies. The book itself was crude in its physical make-up and would have been expensive at 50 cents instead of \$3.50, the price charged for it. *The Journal* also stated that, shoddy as the book was typographically, it was worse than shoddy in the scientific character of its contents. Banning is now out with another piece of publicity material. A large circular, alleged to be sent out by the International Book Concern of Los Angeles, is being received by the editors of newspapers and magazines regarding Pierson W. Banning's "new

and gripping volume, 'Maker, Man and Matter.' " The International Book Concern is merely a name used by Banning. "Maker, Man and Matter" was published three years ago. We have not seen the book, for which he asks \$5, but we have no doubt that it will make a companion volume for "Mental and Spiritual Healing."—*Jour. A. M. A.*, Oct. 4, 1924.

WE have received some rather spicy comments from a health officer concerning the various free clinics that do not originate with doctors but as a result of the agitation of women who want to get in the limelight or others who have personal ends to serve. Concerning baby shows he has the following to say:

These baby shows make me sick. Think of hauling around a number of babies in the heat, dust and dirt that obtains at the usual county fair. Supposedly this is done for the benefit of the babies. Actually it is done because some one is making some money out of it, and so far as the poor babies are concerned it amounts to nothing. A fellow came in a few months ago. He said he was going to put on a baby show for one of the papers. I bluntly asked him where he would get his compensation and he said he was an expert baby photographer. I told him so far as the health department was concerned there would be no sanction of his campaign, and so far as I was concerned personally I was opposed to any such commercializing of child welfare. This fellow proved an expert liar. He went around and told other doctors and the visiting nurses I was in perfect agreement with his plans and he had everything set. I heard of this. I saw the editor of the paper and had a friendly talk with him and gave him some ideas about baby contests he did not have. When the fellow returned to put on his campaign he found there was not a doctor in our city who would have anything to do with him. Of course the nurses were ready, but the editor of the paper refused to go on with the thing, because he had become convinced that it was not really a child welfare proposition at all. So, we headed this one off. But later the K. P. got mixed up with a combined beauty, better-baby-popularity contest. Those of us who are interested in pediatrics refused to have anything to do with it, but some of the other men spent some time at the county fair looking over the babies. What possible good can come to the babies in such hastily conducted examinations? I am off these things for life.

THE chlorine gas treatment for colds and all respiratory infections seems to be very popular in Washington since some of the army surgeons have been experimenting with that treatment and pronounced it valuable. President Coolidge, the Secretary of the Navy, and numerous senators and representatives have tried the treatment and apparently found it efficacious. As might be expected the procedure is being commercialized, and already various quack institutions are advertising the chlorine gas treatment for every kind of cold or respiratory disease, and usually with the catch line "the treatment that cured President Coolidge." Perhaps chlorine gas chambers will be as common as high frequency outfits were a few

years ago and no doctor will feel that his equipment is quite complete without such addition to his armamentarium.

Those physicians who are tempted to try out the chlorine treatment on their patients are advised to investigate the matter from a scientific standpoint and obtain trustworthy information concerning the efficacy and manner of use from the reputable men who have been using it and who first reported their experiences and results in the *Journal of the A. M. A.* of March 8, 1924, and later statistics which may be obtained by applying to the authors of that article. It should be borne in mind that the advocates of the treatment say that when it is properly employed it is of distinct curative value when the organisms are located on the surface of the mucous membranes of the respiratory passages. It is, therefore, applicable to the acute colds and other acute inflammations of the respiratory apparatus, and as such ought to be of considerable importance to the medical profession but it is not applicable in the treatment of the deep-seated or chronic affections.

"WHEN the frost is on the pumpkin and the fodder's in the shock" is the time for county fairs and with them the inevitable baby contests. Of course these baby shows put on in the guise of promoting children's health are, for the most part, sponsored by lay persons, but nevertheless in order to give them an air of trustworthiness and finality some very reputable and experienced physicians will be called upon to give their time gratuitously for about a week to the main idea of telling fond mothers whether their pot-bellied youngsters are getting well balanced rations or not, or suffering from anything from hives to infantile paralysis. The big idea is to have a good show that will attract mothers and get a lot of very valuable free advice from some very reputable physicians, and it does not make any difference whether the candidates are able to pay or not. Thus do we help along the much abused practice of getting something for nothing from the medical profession. Gentle reader, do not get it into your head that THE JOURNAL is fighting the promulgation of health information, or would throw any stone in the way of improving individual and community health, but we do get awfully tired of observing the tendency on the part of lay persons to impose upon the medical profession, and the medical profession to be so devoid of backbone that it abjectly crawls upon its stomach to eat out of the hand of every one who offers. If you can name any vocation that is imposed upon so uniformly, and that gives so graciously of its talents, we will forever hold our peace. Even the charity workers for the most part are paid fat salaries, and the only exception to this is the limousine workers who do a little charity work while airing the pet poodle and aim to get rewarded by being in the limelight.

The Ohio State Medical Journal conducts a department devoted to finance and investment. In the September number it quotes the Better Business Commission of Toledo with warnings to clients about investments with the following:

When some wild-cat stock promotion
Fills the city with commotion
And offers brightly colored stock for bait;
Do not let their line deceive you,
Of your hard-earned cash relieve you,
But before you first invest—investigate.

If you wish to see your dollars
Multiply like dirty collars,
Do not trust your ventures to a kindly fate.
For Fate's a lady fickle,
And she'll get you in a pickle,
If before you buy you don't investigate.

If a glib, efficient fellow
Offers shares of pink and yellow
In E. Z. Mark Oil or Hokum Rubber Slate;
If you simply have to do it
Take this warning now—you'll rue it
If before you buy you don't investigate.

Blue Sky laws cannot protect you
Once the drilling fever gets you
But there's one thing you must get into your pate:
You may be a Roger Babson,
But some slicker's going to grab some
If before you buy you don't investigate.

Continuing, the advice is given that investments in any new concern should be made only after the most painstaking investigation. A knowledge of those who are in charge, the products, the possible market, the strength of the assets, possibility of liability, and numerous other points should be obtained before an investment is made. Generally your banker's advice will prove most valuable.

As usual some of the committee reports presented at the Indianapolis session received scant consideration at the hands of the House of Delegates. We file reports dealing with policies that are detrimental to our interests, and we pass resolutions either approving or condemning certain practices or policies, but we really get nowhere in constructive work because there is no punch back of our perfunctory proceedings. The Committee on Civic and Industrial Relations offered some suggestions that were worthy of serious consideration and yet, barring that phase of the report which referred to actions on the part of the A. M. A. which was endorsed, nothing was done toward securing relief from some of the injustices and conditions that are inimicable to the best interests of physicians both individually and collectively. We ought to secure the appointment of a reputable medical man as a member of the Compensation Board, but nothing was done to put such a plan into operation. We ought to do something to relieve the situation so far as compensation in industrial cases is concerned, for the schedule under which the Compensation Board is

acting at the present time is one that, while questionably fair and just for ten years ago when the economic conditions were different, certainly is not consistent with conditions at the present time when the cost of everything is higher. Even the question of doing industrial work on a salary basis is one for the serious consideration of such an organization as our State Association and for the reason that more and more is the individualism of medical men being destroyed by the industrial system. When all is said and done we really feel that the medical profession needs a lay manager and one that will put into effect business methods that will conserve and protect the interests of the profession.

A WELL-KNOWN physician, himself a user of tobacco, voices the opinion that from a scientific standpoint there probably is basis for the belief that tobacco is harmful to the immature, though it may be comparatively harmless to adults. Attempting to make out that the use of tobacco by the adult is practically without ill effect is pernicious advice. In reality tobacco is so universally used that it is difficult to obtain an unprejudiced opinion, for the user of tobacco who finds solace and comfort in it is not willing to admit that the habit has any injurious effects. As a matter of fact the only way he could prove this would be to abstain from the use of tobacco over a considerable period and in that way demonstrate the condition of health, mentality, and general efficiency before and after the use of tobacco. That tobacco has an injurious effect upon some more than others, even in the same quantities and under the same conditions, is unquestioned, but that tobacco has no deleterious effects under any circumstances is an opinion that is very far fetched, for there are many users of tobacco among physicians who conscientiously admit that they know that tobacco is not good for them but that they get so much satisfaction from the use of the weed that they do not care to stop it and are quite willing to put up with any ill effects that may result from the habit. There is no reason why we should delude ourselves concerning this question, for it is one that comes up almost daily, and many of our patients who are living strenuous lives, more or less confined, and are naturally subject to nervous disorders, may pay the penalty for excessive or even moderate use of tobacco. If we are honest we will tell our patients that tobacco is very apt to be injurious to any one, especially if used in anything more than the strictest moderation, and that at best it is a habit that we can do without and that should not be encouraged.

WITHIN the last year or two there has been a surprising increase in the number of applicants for matriculation in our medical schools, and within the last four years the increase has

amounted to four thousand which, of course, means an increase in the number of practicing physicians in the United States. Already the Indiana University School of Medicine has had three hundred applicants for admission for the medical course which began in September, and out of this number only 110 were accepted as meeting the most rigid requirements that ever have been asked of matriculants. It is very evident that the number of physicians is increasing out of proportion to the needs of the population, and this being the case there is no logical reason why there should be any lowering of the standards for admission to our medical colleges nor any shortening of the curriculum, or lowering of the cost of medical education. From a practical standpoint what we need is not a shortening of the curriculum but a revision of it to meet the needs of present day medical education whereby those who elect to follow a certain specialty exclusively may devote more of their time to those branches that directly concern the specialty chosen, and less time to those which have little or no bearing upon the specialty. We need better doctors, and in this age of specialism a consistent scheme of medical education and training will take into consideration the necessity for emphasis upon everything that pertains to the particular specialty chosen by the student as eventually being his life work. This does not mean total disregard of anything pertaining to the general practice of medicine, for it is a recognized fact that the best specialists are those who have a good working knowledge of all the fundamental branches of medical practice, but with the broadening of our knowledge of all phases of medicine and surgery it seems inconsistent to burden the student with exacting requirements covering branches of medicine that have scarcely any bearing upon the chosen field of practice.

WALER R. HADWEN, M.D., of Gloucester, England, is a leader among those who object to scientific experimentation on animals, who believe that disease is not caused in any instance by germs, and who therefore in the treatment of disease oppose the use of such things as diphtheria antitoxin, insulin and other remedies derived in a similar manner. Within the last few years he toured the United States under the auspices of antivivisection, antivaccination and similar organizations. He now finds himself in rather unusual difficulties, on account of the refusal of an English jury to recognize his peculiar theories of disease when they are put into actual practice and result in the death of a child. A mother of Gloucester called Dr. Hadwen, who unfortunately possesses the degrees M.D., M.R.C.S. and L.R.C.P., to take care of her daughter, aged ten, who, according to the report of the inquest, had a sore throat with a blood-tinged nasal discharge and offensive breath. Hadwen

is said to have applied gargles of warm water and vinegar, made a cursory examination, and in later visits prescribed painting the throat with glycerin, as the child could not gargle. Later, the family, being dissatisfied with Dr. Hadwen's treatment, called in another physician who diagnosed diphtheria and pneumonia, and stated that the condition was practically hopeless. The child died three hours later. In his examination by the coroner, Dr. Hadwen insisted that the germ theory was "all bosh." Fortunately he could not convince the jury of his views. A verdict was returned that "the child died from diphtheria and pneumonia, and that Dr. Hadwen failed to show competent skill and special attention, in consequence of which failure the child died." The coroner said that in law this was a verdict of manslaughter, and Dr. Hadwen will come up for trial in the near future. It is time that the pernicious activities of this deluded fanatic should have met with some legal or governmental control. It is unfortunate that it should have required the needless death of an innocent child before the government could take any activity to curb his influence on his equally ignorant followers. It is hoped that the trial for manslaughter will give opportunity for further education of the public, so that means will be no longer forthcoming for supporting Hadwen in his endeavors.—*Jour. A. M.*, Oct. 4, 1924.

DEATHS

JAMES A. HARPER, M.D., of Shelburn, died August 23rd, at the age of eighty-four years. Dr. Harper had not been in active practice for the past twenty years.

ALFRED M. YUNDT, M.D., of Mulberry, Indiana, died August 4th, aged sixty-nine years. Dr. Yundt was a graduate of the Jefferson Medical College of Philadelphia in 1881.

W. T. THOMAS, M.D., colored physician of Marion, Indiana, died September 6th at the age of fifty-four years. Dr. Thomas graduated from the Louisville National Medical College in 1897.

MARY E. PHELPS, M.D., of Newburg, aged seventy-two years, died September 21st following an illness of several years. Dr. Phelps graduated from the Northwestern University Women's Medical College in 1893.

THOMAS I. PADGETT, M.D., of Terre Haute, died August 5th. Dr. Padgett was sixty years of age, and had retired from active practice. He was a graduate of the Hospital College of Medicine, Louisville, Kentucky, in 1889.

JOHN S. BRADLEY, M.D., of Hall, Indiana, died September 19th at the age of forty-nine years.

Dr. Bradley was a member of the Morgan County Medical Society, the Indiana State Medical Association and the American Medical Association. He graduated from the Louisville Medical College in 1898.

S. O. LEAK, M.D., of Indianapolis, died September 16th at the age of sixty years. Dr. Leak was a member of the Indianapolis Medical Society, the Indiana State Medical Association and a Fellow of the American Medical Association. He graduated from the Illinois Medical College, Chicago, in 1897.

P. B. LITTLE, M.D., of Whitestown, died August 27th. Dr. Little was fifty-eight years of age. He was a member of the Boone County Medical Society, the Indiana State Medical Association and was a Fellow of the American Medical Association. Dr. Little graduated from the Medical College of Indiana, Indianapolis, in 1895.

WILLIAM HENRY THOMPSON, M.D., of Winamac, died September 11th at the age of eighty years. Dr. Thompson had practiced medicine at Winamac for fifty-four years. He was a member of the Pulaski County Medical Society, the Indiana State Medical Association and a Fellow of the American Medical Association. Dr. Thompson graduated from the Detroit Medical College in 1870 and from the Medical College of Indiana, Indianapolis, in 1883.

NEWS NOTES AND PERSONALS

Anything in the line of physicians' supplies or equipment may be obtained from advertisers in THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION. Patronize these advertisers, for it means a continuance of their advertising patronage, and the latter means a larger and better Journal for you.

THE Howard County Medical Society held a meeting September 5th at Kokomo.

DR. AND MRS. J. RUDOLPH YUNG returned to their home in Terre Haute on September 14th from a two months' tour of Northern Europe.

THE twenty-second annual state meeting of the Indiana State Nurses' Association was held at Indianapolis, October 2nd, 3rd and 4th.

THE Pitman-Moore Company, of Indianapolis, has announced the removal of its business to the new plant located at Madison Avenue, Morris and Delaware Streets.

DR. THOMAS Z. BALL has been appointed examining surgeon at Crawfordsville for the Bureau of Pensions of the United States Department of the Interior.

THE annual session of the Thirteenth District Medical Society was held at Laporte, September 3rd. The visiting members were guests at a luncheon given at the Laporte Country Club.

THE first meeting of the Delaware-Blackford County Medical Society for the 1924-1925 season was held at the Hotel Roberts, Muncie, September 5th.

DR. R. M. REAGAN, of Monon, has announced his retirement from the active practice of medicine. Dr. R. M. Ringer has taken over Dr. Reagan's practice.

DR. S. A. SHOEMAKER, of Bluffton, has announced his retirement from the practice of medicine. He has sold his office and equipment to Dr. H. E. Curtis, of Charles City, Iowa.

THE Kosciusko County Medical Society held a meeting at the Warsaw Library, September 16th. Papers were presented by Drs. S. C. Murphy and M. G. Yocum.

THE Jasper-Newton County Medical Society held its regular monthly meeting at Morocco, September 26th. Papers were presented by Drs. E. N. Loy and O. E. Glick.

DR. L. FORREST SWANK and Miss Mary Geraldine Conrad, both of Elkhart, were married August 31st, and have taken up their residence in that city.

DR. AND MRS. H. C. GROMAN, of Hammond, have returned recently from a five months' tour of England, Scotland, Germany, France, Austria and Italy.

THE Tippecanoe County Medical Society held a meeting at the Fowler Hotel, Lafayette, September 9th. Following a dinner, Dr. D. A. Horner, of Chicago, presented a paper on "Everyday Obstetrical Problems."

AT a meeting of the Miami County Medical Society, held at Peru, August 29th, Dr. S. Malouf presented a paper on "Observations in the Hospitals at Vienna and Other Prominent Cities in Europe."

THE nineteenth annual convention of the National Medical Association of Negro Physicians was held recently at Newport News, Virginia. The next annual convention will be held in Chicago.

DR. RUSSELL B. ENGLE, formerly of Winchester, has moved to Farmland where he will take up the practice of medicine. Dr. Engle occupies

the office and residence of Dr. Charles Botkin, who has moved to Muncie.

AT the recent annual meeting of the Thirteenth District Medical Society, held at Laporte, Dr. James A. Work, Jr., of Elkhart, was made president and Dr. George W. Kimball, of Laporte, was made secretary and treasurer. The 1925 annual meeting will be held in Warsaw.

DR. CHARLES L. BOTKIN has removed from Farmland to Muncie, where he will confine himself to the special practice of dermatology, syphilology and cutaneous cancer. Dr. Botkin's new offices are in the Western Reserve Life Building.

THE Muncie Academy of Medicine held a meeting at the Hotel Roberts, September 12. Dr. W. D. Gatch, of Indianapolis, presented a paper, his subject being "Septicemia—Blood Stream Infections." This was the first meeting of the 1924-1925 season.

THE next meeting of the Eleventh Councilor District Medical Society will be held in Peru, November 6th, 1924. Dr. E. P. Seisler, of Chicago, will give a skin clinic in the forenoon and will present an address in the afternoon. Dr. W. D. Gatch, of Indianapolis, will present a paper in the afternoon. Members of all adjoining district medical societies have been invited to attend.

ARTHUR L. OILAR, M.D., Epidemiologist for the State Board of Health, has been given leave of absence for six months to take special training at Harvard University under a scholarship from the International Health Board. B. H. Jeup has also been granted a leave of absence for two months under a similar scholarship to take special work in sanitary engineering at Harvard University.

THURMAN B. RICE, M.D., has been appointed superintendent in the Laboratory of Hygiene of the State Board of Health, and entered upon his duties September 1st. Dr. Rice has been assistant professor of Pathology and Bacteriology in Indiana University School of Medicine for the past two years, and comes to the State Board of Health well qualified by training and experience for his new duties.

THE Ohio Valley Medical Association will hold its next annual meeting in Evansville, Indiana, November 11 and 12, 1924, under the presidency of Dr. Leon L. Solomon, of Louisville, Kentucky. Dr. Murray N. Hadley, of Indianapolis, is first vice-president of the Association; Dr. James Y. Welborn, of Evansville, is third vice-president, and Dr. Benjamin L. W. Floyd, of Evansville,

is secretary-treasurer. The program contains the names of a large number of well known teachers and clinicians who will present addresses or conduct clinics.

MISS INA M. GASKILL, for more than three years director of the Department of Public Health Nursing of the State Board of Health, has been given a leave of absence beginning September 1st, to serve as school nurse at Shortridge High School at Indianapolis. Miss Gaskill's work as head of the Department of Public Health Nursing was eminently successful and satisfactory in every way, and established a record of achievement through the co-operation of health nurses and nursing organizations throughout the state that has not been exceeded in any other state in the Union. Miss Mary J. Horn, assistant director of the department, becomes *ad interim* acting director.

In addition to the articles already enumerated, the following have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association:

Abbott Laboratories:

Metaphen.

Metaphen Solution 1:5,000.

Swan-Myers Company:

Sterile Ampules of Mercury Benzoate, 2 per cent.

Sterile Ampules of Mercury Biniodide (Oil Solution).

Sterile Ampules of Mercury Salicylate, 0.097 Gm. (1½ Gr.)

Sterile Ampules of Mercury Salicylate, 0.065 Gm. (1 Gr.)

Sterile Ampules of Mercury Succinimide, 0.01 Gm. (1/6 Gr.)

SOCIETIES AND INSTITUTIONS

THIRTEENTH DISTRICT MEDICAL SOCIETY

The meeting was called to order at 10:30 a. m. in the ballroom of the Country Club, LaPorte, by President F. E. Radcliffe. Minutes of the last meeting were read and approved. Financial report for the preceding year was read by the secretary-treasurer and referred to the auditing committee. The president appointed a committee consisting of H. H. Martin, LaPorte; David D. Todd, Elkhart; and W. Bert Siders, Warsaw, to nominate officers for the ensuing year, to audit the books and to select the next place of meeting.

After the noon recess, the committee reported as follows: Nominees, for president, James A. Work, Jr., Elkhart; for vice-president, H. M. Hall, New Carlisle; for secretary-treasurer, G. W. Kimball, LaPorte. The financial statement was correct and Warsaw was selected as the next place of meeting. By vote of the society, the ticket was declared elected and the rest of the report was confirmed.

The following program was given during the day:

1. "Congenital Lues," illustrated by lantern slides, F. R. Nicholas Carter, South Bend. Discussion: R. V. Hoffman, South Bend; W. B. Siders, Warsaw; C. C. DuBois, Warsaw, and M. K. Miller, South Bend.

2. "Some Remarks Concerning Contagious Diseases," Charles S. Bosenbury, South Bend. Discussion: Charles Stoltz, South Bend; M. W. Lyon, Jr., South Bend, and O. H. Richer, Warsaw.

3. "Practical Pediatric Problems," Milo K. Miller, South Bend. Discussion: T. C. Eley, Plymouth; F. V. Martin, Michigan City; S. O. Barwick, Elkhart, and Charles Stoltz, South Bend.

4. "Sclerosis of Coronary Arteries," illustrated by lantern slides, M. W. Lyon, Jr., South Bend. Discussion: L. A. Wilson, Michigan City; David D. Todd, Elkhart; C. N. Howard, Warsaw; C. C. Terry, South Bend; F. V. Martin, Michigan City; J. A. Work, Jr., Elkhart, and H. L. Cooper, South Bend.

5. "Some Common Skin Diseases and Their Treatment," R. C. Shanklin, South Bend. Discussion: Charles Stoltz, South Bend; C. S. Bosenbury, South Bend; A. C. McDonald, Warsaw; J. A. Work, Jr., Elkhart; C. N. Howard, Warsaw; F. R. Nicholas Carter, South Bend; F. E. Radcliffe, Bourbon, and J. C. Fleming, Elkhart.

The after-dinner address was given by A. C. McDonald, Warsaw, on "Appendicitis". Discussion: P. G. Skillern, South Bend; A. M. Sullivan, South Bend; J. C. Fleming, Elkhart; C. C. Terry, South Bend, and F. V. Martin, Michigan City.

Adjournment.

JAMES A. WORK, JR., Secretary.

INDIANA STATE MEDICAL ASSOCIATION

Indianapolis Session

September, 1924

The Indianapolis session shattered all previous records for attendance by totaling 1,012 members in actual attendance. The previous record was the Indianapolis session in 1915, when 646 members registered. The Terre Haute session last year had 522, the largest ever held outside of the Capital City. In addition to the members there were approximately one hundred out-of-state physicians who attended as guests. No exact figures were reported concerning the number of ladies in attendance, but an estimate of 300 would not be far from the truth. Taking all of these into consideration, the total attendance was around 1,400.

A study of the registration figures reveals a most gratifying fact and that is that practically every county society in the state was represented, and in fact all were except Jasper-Newton, Perry, Scott, Warrick and White. We hope no injustice has been done these counties in so naming them, as it is possible that some physicians may have attended from those counties who did not register. Outside of Indianapolis Terre Haute easily outranked the other cities in the state in attendance, as there were forty-four from Vigo County.

The list of delegates printed is as near accurate as Dr. Poland, Chairman of the Committee on Credentials, and Dr. Combs, Secretary, could ascertain. In some instances, the delegate was present at the first meeting and the alternate was present at the last meeting, but only the delegate's name is printed. It is very unfortunate that with an attendance from practically every county so many of the counties were still unrepresented in the House of Delegates. It again is urged that where the regular delegate cannot attend, any representative member of the society who can attend should be given credentials so that he can act as delegate from his constituent society.

The secretary of this Association wishes to make public confession of his failure to list Dr. G. W. H. Kemper as the ranking ex-president of the Association. If full justice were done, Dr. Kemper's name should be published in THE JOURNAL on a page entirely devoted to that one item, as he is the only Honorary Member of the county society, Honorary Member of the Indiana State Medical Association, and Honorary Affiliate Fellow of the American Medical Association. We only wish there were more honors to confer, as he deserves recognition

far beyond our ability to grant it. Dr. Kemper is so enshrined in the hearts of the officers of this Association that he need have no fears that a typographical error will cause us to forget him or his many services to the Association.

The record of attendance is as follows:

County	Present	Delegate
Adams	4	
Allen	18	J. C. Wallace D. F. Cameron
Bartholomew	15	
Benton	1	
Boone	6	
Carroll	11	
Cass	4	G. D. Miller
Clark	4	
Clay	7	L. C. Rentschler
Clinton	11	C. A. Finn
Daviess-Martin	8	Wm. O. McKittrick
Dearborn-Ohio	2	
Decatur	13	C. R. Bird
DeKalb	1	
Delaware-Blackford	24	I. N. Trent
Dubois	3	H. C. Knapp
Elkhart	14	A. C. Yoder
Fayette	2	
Floyd	5	Wm. Moore
Fountain-Warren	6	
Franklin	4	
Fulton	8	
Gibson	5	O. T. Brazleton
Grant	14	Geo. R. Daniels
Greene	4	E. R. Mason
Hamilton	12	L. J. Baldwin
Hancock	15	E. R. Sisson
Hendricks	14	C. B. Thomas
Henry	16	
Howard	24	H. M. Rharer
Huntington	11	W. F. Smith
Jackson	6	C. E. Gillespie
Jay	5	A. C. Badders
Jefferson	7	
Jennings	5	W. H. Stemm
Johnson	4	
Knox	15	N. E. Beckes
Kosciusko	7	P. A. Garber
LaGrange	2	A. J. Hostetler
Lake	14	E. S. Jones H. C. Groman
LaPorte	5	
Lawrence	10	
Madison	25	
Marion	363	C. H. McCaskey A. L. Marshall E. F. Kiser W. H. Foreman J. W. Carmack G. B. Jackson C. R. Sowder J. A. MacDonald Alfred Henry J. E. Yarling Fred H. Batman Fred A. Dennis
Miami	7	
Monroe	13	
Montgomery	17	
Morgan	6	
Noble	2	
Orange	5	J. R. Dillinger
Owen	3	Allen Pierson
Parke-Vermillion	7	C. S. White
Pike	1	J. T. Kime
Porter	1	
Posey	1	Chas. Arbun
Putnam	8	
Randolph	6	O. E. Current
Ripley	4	A. C. Bauer
Rush	10	

County	Present	Delegate
St. Joseph	21	R. L. Sensenich W. H. Baker
Shelby	11	P. R. Tindall
Spencer	1	
Steuben	2	W. H. Lane
Sullivan	9	J. S. Brown
Switzerland	1	
Tippecanoe	27	
Tipton	10	S. M. Cotton
Vanderburg	7	Pierce McKenzie A. M. Hayden
Vigo	44	O. R. Spigler F. E. Sayers O. G. Brubaker
Wabash	10	
Washington	1	
Wayne-Union	20	J. E. King
Wells	2	D. C. Wybourn
Whitley	1	

Councilors present: J. H. Willis, Joseph Smadel, Walter Leach, C. E. Gillespie, J. H. Weinstein, G. H. Smith, O. T. Scamahorn, E. M. Conrad, W. R. Moffit, E. E. Evans, C. S. Black, C. N. Howard.

Ex-presidents present: G. W. H. Kemper, G. T. McCoy, T. C. Kennedy, C. H. Good, David Ross, G. F. Keiper, W. H. Stemm, J. R. Eastman, W. R. Davidson.

CHARLES N. COMBS, Secretary.

HOUSE OF DELEGATES

FIRST MEETING

The House of Delegates of the Indiana State Medical Association held its first meeting of the Indianapolis session September 23, 1924, at eight o'clock p. m., the president, Dr. Samuel E. Earp, of Indianapolis, presiding.

On roll-call the secretary announced a quorum present.

On motion, duly seconded, the House dispensed with the reading of the minutes of the last meeting.

The report of the secretary-treasurer was accepted as printed in THE JOURNAL.

Dr. F. W. Cregor, chairman of the Committee on Public Policy and Legislation, made a verbal report covering the points in the printed report, and in addition announced that the committee is considering the putting on of a post-election campaign, the purpose being to have some one visit every man elected to the Legislature and discuss with him matters of interest to the medical profession and for the advancement of public health. Dr. Cregor also stated that the committee had considered, without specific recommendation, that the appointment of an all-time secretary would be very desirable for this organization.

Moved by Dr. Cregor that this report be adopted. Motion seconded, but after some discussion the Chair ruled that the report be referred to the Council and that they report at the Friday meeting of the House of Delegates.

Moved by Dr. A. E. Bulson, Jr., that any recommendations that are made by the various committees, before being passed by the House of Delegates, be referred to reference committees, who shall report back to the House of Delegates for action. Motion seconded, but lost.

Report of the Committee on Administration and Medical Defense adopted as printed in THE JOURNAL.

Report of the Bureau of Publicity—the Chair ruled that this report belongs to the Council, not the House of Delegates.

The House then discussed the following resolution introduced before the Council by Dr. E. M. Shanklin, December 28, 1923:

"WHEREAS, For some years past the president of the Indiana State Medical Association has, under the Constitution and By-Laws of the State Association, annually appointed a Hospital Committee; and

"WHEREAS, The work of this committee is thoroughly and competently covered by the American College of

Surgeons and the American Medical Association; therefore

"BE IT RESOLVED, That the Council recommends that the House of Delegates abolish the Hospital Committee of the Indiana State Medical Association."

This question was discussed by Drs. Miller, Bulson, Davidson and Sensenich, and it was moved by Dr. Sensenich that this matter be referred to the Council. Motion seconded, but lost.

Report of Committee on Automobile Insurance, adopted as printed in THE JOURNAL.

The program was accepted as the report of the Committee on Scientific Work.

Report of the Committee on Necrology adopted as printed.

Report of the Delegates to the American Medical Association adopted as printed.

Under the head of "Communications" the secretary read a letter from the Indiana Tuberculosis Association, stating that "it is the desire of our Association that an official representative of the Indiana State Medical Association be appointed to meet with the Indiana Tuberculosis Association. If this is acceptable to your Association, the Indiana Tuberculosis Association will appoint an official representative to meet with the Indiana State Medical Association."

It was moved by Dr. Charles H. Good that the president of the Indiana State Medical Association appoint a member from this Association, living in Indianapolis, to confer with the Indiana Tuberculosis Association. Motion seconded and carried. The president appointed Dr. Thomas J. Beasley.

Dr. F. W. Gregor then read the following resolutions as a part of the report of the Committee on Public Policy and Legislation:

Resolution I:

"WHEREAS, The House of Delegates of the American Medical Association adopted a resolution urging continued efforts to procure reduction of the war tax imposed under the Harrison Narcotic Law to its pre-war basis; and

"WHEREAS, This war tax works an unjust hardship on physicians and there being no just reason for its continuance in this time of peace; therefore

"BE IT RESOLVED, By the House of Delegates of the Indiana State Medical Association, that it endorses the action of the House of Delegates of the American Medical Association and urges on the officers of the Association continued efforts to bring about the reduction of this tax to its pre-war basis.

"AND BE IT FURTHER RESOLVED, That the secretary be instructed to forward a copy of this resolution to the Bureau of Legal Medicine and Legislation of the American Medical Association."

Moved by Dr. Gregor that this resolution be adopted. Motion seconded and carried.

Resolution II:

"WHEREAS, By the ruling of the Commissioner of Internal Revenue, physicians have been denied the privilege of deducting their traveling and other necessary expenses while in attendance upon national and state medical meetings, in computing their income tax; and

"WHEREAS, It appears that relief may only be expected from litigation rather than from legislation;

"THEREFORE, BE IT RESOLVED, By the House of Delegates of the Indiana State Medical Association, that it extends every encouragement and support possible to the Board of Trustees of the American Medical Association in its effort to have this unjust regulation righted.

"AND BE IT FURTHER RESOLVED, That the secretary be instructed to forward a copy of this resolution to the Bureau of Legal Medicine and Legislation of the American Medical Association."

Moved by Dr. Gregor that this resolution be adopted. Motion seconded and carried.

Resolution III:

"WHEREAS, The House of Delegates of the American Medical Association, at its recent meeting in Chicago, adopted a resolution favoring the enactment of a law which would provide for the proper labeling of *lye* and other caustic substances before the same can be offered for sale to the public; and

"WHEREAS, Many accidents have occurred and much injury inflicted because the labeling of these dangerous products has not been properly regulated.

"THEREFORE, BE IT RESOLVED, By the House of Delegates of the Indiana State Medical Association, that it endorses the resolution adopted by the House of Delegates of the American Medical Association and urges its Representatives in the National Congress to use all honorable means to procure the adoption of such legislation.

"BE IT FURTHER RESOLVED, That the secretary be instructed to forward a copy of this resolution to the Senators from Indiana, the Representatives from Indiana in the National House of Representatives, and to the Bureau of Legal Medicine and Legislation of the American Medical Association."

Moved by Dr. Gregor that this resolution be adopted. Motion seconded.

Moved by Dr. A. E. Bulson, Jr., that in addition to this resolution, the Committee on Public Policy and Legislation attempt to get such a law passed by the State.

Amendment accepted and amended motion carried.

Resolution IV:

"WHEREAS, There has been introduced in the National Congress, Senate Bill Number 3445, and House Bill Number 9529, an Act for the *Reorganization of Federal Health Activities*; and

"WHEREAS, The Board of Trustees of the American Medical Association has recorded its judgment that this legislation will not promote the efficiency of the Public Health Service and insofar as it affects this service should be opposed;

"THEREFORE, BE IT RESOLVED, That the House of Delegates of the Indiana State Medical Association records itself as being in every way in accord with the judgment of the Board of Trustees of the American Medical Association; and

"BE IT FURTHER RESOLVED, That the secretary be instructed to forward a copy of this resolution to the Bureau of Legal Medicine and Legislation of the American Medical Association."

Moved by Dr. Bulson that this resolution be adopted.

Motion seconded and carried.

Resolution V:

"WHEREAS, There was adopted by the House of Delegates of the American Medical Association a resolution which originated in the Section on Dermatology and Syphilology of the Association, calling attention to the injuries caused by cosmetics, and urging that cosmetics preparations be placed under the Food and Drug Act and require especially the names of all poisonous ingredients be placed on the labels, and for legislation prohibiting the use of the most harmful type of ingredients in cosmetics, and legislation prohibiting the use of paraphenylenediamine as a dye for hair and fur; and

"WHEREAS, There are many cases of poisoning from the dyes contained in the rubber of corsets prominently advertised for reducing purposes;

"THEREFORE, BE IT RESOLVED, By the House of Delegates of the Indiana State Medical Association that it endorses the action taken by the House of Delegates of the American Medical Association regulating the manufacture and sale of harmful substances contained in cosmetics and wearing apparel.

"AND BE IT FURTHER RESOLVED, That the secretary be instructed to forward a copy of this resolution to the Bureau of Legal Medicine and Legislation of the American Medical Association."

Moved by Dr. Gregor that this resolution be adopted. Motion seconded and carried.

Resolution VI:

"WHEREAS, The House of Delegates of the American Medical Association adopted a resolution condemning that portion of the Prohibition Act which interferes with the confidential relationship between a physician and patient;

"THEREFORE, BE IT RESOLVED, By the House of Delegates of the Indiana State Medical Association that it endorses the action of the House of Delegates of the American Medical Association; and

"BE IT FURTHER RESOLVED, That the secretary be instructed to forward a copy of this resolution to the Bureau of Legal Medicine and Legislation of the American Medical Association."

Moved by Dr. Cregor that this resolution be adopted. Motion seconded.

Moved by Dr. C. Norman Howard, as an amendment, that this resolution be referred to a committee. Motion seconded.

Moved by Dr. E. S. Jones that this resolution be laid on the table. Motion seconded and carried.

Dr. F. S. Crockett, chairman of a committee appointed last year to arrange for the last meeting of the House of Delegates, reported as follows:

"Each year it has become increasingly difficult to have the last meeting of the House of Delegates at such a time as not to interfere with the scientific meeting. According to the Constitution it must be held Friday morning, and the committee suggests that next year the Friday morning meeting of the House of Delegates be a breakfast meeting, that is, that it begin at seven-thirty, and while breakfast is being served there can be election of officers and discussion of such things as may be referred, getting through by eight-thirty or nine o'clock. I move that this report be adopted."

Motion seconded and carried.

It was moved by Dr. A. E. Bulson, Jr., that a telegram be sent to the Kentucky State Medical Association, conveying the cordial greeting and best wishes of this Association and a hope for a successful meeting. Motion seconded and carried.

Dr. A. E. Bulson, Jr., then read several amendments to the Constitution, offered by Dr. Geo. F. Keiper, of Lafayette. These will be printed and lie over until next year.

The House of Delegates adjourned to Friday morning at eight o'clock.

SECOND MEETING

The last meeting of the House of Delegates was called to order at eight-fifteen Friday morning, September 26th, the president presiding.

Reading of minutes of last meeting, by consent, dispensed with.

On roll-call the secretary announced a quorum present.

The first order of business was Election of Officers, which resulted as follows: President, E. M. Shanklin, Hammond; first vice-president, Charles G. Beall, Fort Wayne; second vice-president, John H. Hare, Evansville; third vice-president, Melville F. Johnston, Richmond; secretary-treasurer, Charles N. Combs, Terre. Delegate to A. M. A. (2 years)—J. R. Eastman, Indianapolis. Alternate—David Ross, Indianapolis. Member Committee on Administration and Medical Defense—A. L. Marshall, Indianapolis. Member Committee on Hospital Standardization (5 years)—E. J. Lent, South Bend. Councilors: Joseph Smadel, Second District; Joseph H. Weinstein, Fifth District; E. M. Conrad, Eighth District; C. S. Black, Eleventh District.

Speaking on the question of place of meeting, Dr. William R. Moffitt stated that although Lafayette virtually had been promised the meeting in 1925, they were willing to give way to Marion, with the understanding that Lafayette will be considered for 1926.

Marion was chosen for the 1925 meeting.

The Council reported to the House of Delegates its approval of the work that has been done by the Bureau of Publicity. It furthermore approved the following supplemental report of the Bureau of Publicity and recommended its adoption by the House of Delegates:

"1. The Bureau of Publicity recommends that the members of the new Bureau be appointed, one for one year, one for two years, and one for three years, and thereafter each member be appointed for a term of three years.

"2. The Bureau recommends an increase of the budget of \$1,000, making the total budget for the ensuing year, 1925, \$8,000."

The Council further recommended that the Bureau of Publicity, with the co-operation and approval of the Advisory Committee of the Council, be empowered to employ such help as may be required and for such length of time as seems advisable.

Moved by Dr. Daniels that the report of the Council be accepted as read. Motion seconded and carried.

Moved by Dr. Charles H. Good that the Chair appoint a committee to convey to Dr. W. N. Wishard the greetings of the House of Delegates and the hope that his convalescence may continue and perfect health ensue.

The Chair appointed as this committee, Drs. C. H. Good and G. D. Miller.

The chairman then announced that as there had been a vacancy on the Advisory Committee of the Bureau of Publicity, owing to the resignation of Dr. E. M. Shanklin, he had appointed to fill this vacancy Dr. W. R. Davidson, of Evansville.

Moved by Dr. Charles N. Combs that a vote of thanks be given to the Indianapolis Medical Society for its entertainment, and especially to the Ladies' Entertainment Committee for its entertainment of the visiting ladies; also a vote of thanks to the officers of the Association for their work during the year. Motion carried by rising vote.

Dr. G. D. Miller reported that Doctor Wishard was very much pleased to have the greetings of the Association.

The president thanked the members for their support during the year, and the House of Delegates adjourned *sine die*.

CHARLES N. COMBS, Secretary.

THE COUNCIL FIRST MEETING

The first meeting of the Council was held at 5:00 p. m., Tuesday, September 23, 1924, at the Severin Hotel. Present, Drs. J. H. Weinstein, F. S. Crockett (for Dr. W. M. Moffitt), O. T. Scamahorn, E. M. Conrad, C. E. Gillespie, C. S. Black, C. N. Howard, W. R. Davidson, E. E. Evans, S. E. Earp, E. M. Shanklin and Charles N. Combs.

Dr. Earp, president, called the meeting to order. He spoke of the long and faithful service of Dr. Shanklin, and voiced the regret of the Council at having to receive his resignation. Dr. Earp appointed Dr. W. R. Davidson chairman pro-tem of the Council, who then took the chair.

Verbal reports were heard from the several districts, all of which were indicative of encouraging activities throughout the state.

Dr. Earp reported that he had visited County and District societies in various parts of the state and had addressed twenty-two of the societies.

Dr. Shanklin asked ratification of his action in writing the Indiana Congressmen urging reductions in income and narcotic taxes, and also in ruling that the president's traveling expenses be allowed and ordered paid by the treasurer. Council voted consent.

A lengthy discussion ensued concerning the Bureau of Publicity. It appeared to the Council that since the original contract with the secretary of this Bureau was presented to this body, the renewal of this contract, involving the expenditure of funds, should also be presented to

it for confirmation. Therefore, a motion was carried with the request that the report of the Bureau of Publicity to the House of Delegates should be referred to the Council for consideration.

It was moved and carried that the chairman of the Council appoint a committee to consider the question of further activities of the Bureau of Publicity. Chair appointed Drs. E. M. Conrad, E. E. Evans and C. S. Black. These members were instructed to meet with the Bureau of Publicity and agree upon a report to be made to the House of Delegates Friday morning.

The secretary was instructed to write Dr. Thomas J. Dugan a letter of thanks for guest cards to the Indianapolis Athletic Club.

Adjourned. CHARLES N. COMBS, Secretary.

SECOND MEETING

A called meeting of the Council was held at 1:00 p. m., September 24, 1924, in compliance with the instructions received from the House of Delegates to discuss with the members of the Bureau of Publicity their report which had been published in the September number of THE JOURNAL, and had been presented to the House of Delegates on September 23rd.

Present, Drs. S. E. Earp, G. H. Smith, C. N. Howard, J. H. Weinstein, E. E. Evans, C. S. Black, E. M. Conrad, Charles N. Combs, Albert E. Bulson, Jr., David Ross and F. W. Gregor.

The first topic considered was a suggestion made by the Committee on Public Policy and Legislation that the Association undertake a post-election campaign.

Dr. Howard moved that the Association appropriate funds not to exceed \$1,500 for the expense of the Legislative Committee. Motion seconded and carried.

Dr. Black moved (a) that the Council hereby express its approval of the work that has been done by the Bureau of Publicity; (b) its approval of the following supplemental report of the Bureau of Publicity, recommending its adoption by the House of Delegates: 1. That the members of the new Bureau of Publicity be appointed one for one year, one for two years, one for three years, and thereafter each member be appointed for a term of three years. 2. An increase in the budget of \$1,000, making the total budget for the ensuing year, 1925, \$8,000. The Council further recommended that the Bureau of Publicity with the co-operation and approval of the Advisory Committee of the Council be empowered to employ such help as may be required and for such length of time as seems advisable. Motion seconded and carried.

Dr. Howard moved that a committee composed of the Bureau of Publicity together with the Advisory Committee of the Council consider the advisability of employing an all-time secretary for the Association, this committee to report to the Council at a called meeting or not later than the regular mid-winter meeting. Motion seconded and carried.

On account of the vacancy in the chairmanship caused by the resignation of Dr. E. M. Shanklin from the Council, President Earp appointed Dr. W. R. Davidson to fill the unexpired time of Dr. Shanklin, that is until January 1, 1925.

Adjournment.

CHARLES N. COMBS, Secretary.

THIRD MEETING

The final meeting of the Council was held at 9:00 a. m., Friday, September 26, 1924, Dr. W. R. Davidson presiding.

Present, Drs. C. S. Black, E. E. Evans, W. J. Leach, G. H. Smith, O. T. Scamahorn, C. E. Gillespie, W. R. Moffitt, E. M. Conrad, Charles N. Combs, Albert E. Bulson, Jr., and S. E. Earp.

Dr. B. D. Myers, chairman of the Committee on Medical Education, made a verbal report of the work of his committee since he had been unable to submit a printed report to the House of Delegates.

No other business appearing, the Council adjourned.

CHARLES N. COMBS, Secretary.

SCIENTIFIC MEETINGS

FIRST MEETING

The first scientific meeting of the Indiana State Medical Association was called to order at 8:45 a. m., Wednesday, September 24, 1924, by the president, Dr. Samuel E. Earp, of Indianapolis.

Dr. Samuel E. Earp read the president's address, entitled, "The Past, Present and Future of Medical Economics."

Dr. Charles F. Hoover, Cleveland, Ohio, presented a Dry Clinic on "Chronic Emphysema with Cyanosis; Incipient Tuberculosis of Lungs; Periodic Asthma."

Dr. Kellogg Speed, Chicago, presented a Dry Clinic on "Fractures."

Dr. Joseph C. Beck, Chicago, presented a Dry Clinic entitled, "Plastic Surgery About the Face, Head and Neck." (Lantern slides).

The meeting adjourned.

SECOND MEETING

The Wednesday afternoon meeting was called to order at two o'clock by the president, Dr. A. A. Rang, first vice-president, presiding.

Dr. Bransford Lewis, St. Louis, read a paper entitled "Urologic Diagnosis for the General Practitioner." This paper was discussed by Drs. Homer G. Hamer, Indianapolis; Frank S. Crockett, Lafayette; P. E. McCown, Indianapolis, and the discussion closed by Dr. Bransford Lewis.

Dr. William L. Benedict, Rochester, Minnesota, read a paper entitled "Treatment of Diseases of the Uvea and Retina: A Review of 100 Cases Treated at the Mayo Clinic." This paper was discussed by Drs. Frank Morrison, Indianapolis; Edward Jackson, Denver; A. E. Bulson, Jr., Fort Wayne; and the discussion closed by Dr. William L. Benedict.

Dr. Frank Smithies, Chicago, read a paper entitled "The Significance of Gall Bladder and Biliary Tract Disease; Observations upon Physiology, Diagnosis and Treatment." This paper was discussed by Dr. Louis G. Heyn, Cincinnati, Ohio.

The meeting adjourned.

THIRD MEETING

The Thursday morning meeting was called to order at nine o'clock, the president, Dr. Samuel E. Earp, presiding.

The secretary read a telegram of greeting from the Kentucky State Medical Association, in convention.

Dr. Andre Crotti, Columbus, Ohio, presented a Dry Clinic on "Goiter."

Dr. John E. Greiwe, Cincinnati, Ohio, presented a Dry Clinic on "Functional Changes in the Heart." (Lantern slides.)

Dr. Gabriel Tucker, and Dr. Louis H. Clerf, of the Bronchoscopic Clinic of Philadelphia, presented a Dry Clinic on "Bronchoscopy in the Diagnosis and Treatment of Lung Suppuration."

The meeting adjourned.

FOURTH MEETING

The Thursday afternoon meeting was called to order at two o'clock by the president, Dr. Samuel E. Earp.

Dr. Walter M. Boothby, Rochester, Minnesota, read a paper entitled "The Importance of Correct Diagnosis in the Treatment of Thyroid Diseases." This paper was discussed by Dr. J. H. J. Upham, Columbus, Ohio.

Dr. Edward Jackson, Denver, Colorado, read a paper entitled "A Present Understanding of Tuberculosis." This paper was discussed by Dr. Gardner C. Johnson, Evansville, and the discussion closed by Dr. Edward Jackson.

Major Gabriel Seelig, St. Louis, read a paper entitled "Diabetes and Surgery." There was no discussion of this paper.

The meeting adjourned.

FIFTH MEETING

The Thursday evening meeting was a public meeting in Cadle Tabernacle, Dr. Joseph R. Eastman, presiding.

The president, Dr. Samuel E. Earp, made a short address.

Dr. W. A. Pusey, Chicago, president of the American Medical Association, read a paper entitled "Syphilis as a Sanitary Problem."

Dr. Hugh T. Patrick, Chicago, read a paper entitled "Nervous Disorders and the Public Welfare."

Dr. William J. Mayo, of the Mayo Clinic, read a paper entitled "The Influence of Ignorance and Neglect on the Incidence and Mortality of Cancer."

The meeting adjourned.

SIXTH MEETING

The Friday morning meeting was devoted to clinics at the City Hospital, each Section holding a Clinic as follows:

Section on Ophthalmology and Oto-Laryngology:

Dr. L. Webster Fox, Philadelphia. (Eye Clinic).

Dr. Ross Hall Skillern, Philadelphia, (Ear, Nose and Throat Clinic).

Section on Medicine:

Dr. Alfred Stengel, Philadelphia.

Dr. James B. Herrick, Chicago.

Section on Surgery:

Dr. Carl A. Hedblom, Mayo Clinic, Rochester.

The following officers were elected by the various Sections:

Section on Ophthalmology and Oto-Laryngology:

Chairman, D. O. Kearby, Indianapolis; vice-chairman, Fred McK. Ruby, Union City; secretary, Bernard D. Ravdin, Evansville.

Section on Medicine:

Chairman, E. O. Daniels, Marion; vice-chairman, W. A. Fankboner, Marion; secretary, B. G. Keeney, Shelbyville.

Section on Surgery:

Chairman, Howard O. Shafer, Rochester; vice-chairman, Edw. A. Brown, Indianapolis; secretary, Merrill S. Davis, Marion.

SEVENTH MEETING

The Friday afternoon meeting was called to order at two o'clock by the president, Dr. Samuel E. Earp, who introduced the newly-elected president, Dr. E. M. Shanklin, of Hammond.

Dr. Ross Hall Skillern, Philadelphia, read a paper entitled "The Accessory Sinuses as Foci of Infection for Affections in Remote Parts of the Body." This paper was discussed by Dr. John F. Barnhill, Indianapolis.

Dr. Evarts A. Graham, St. Louis, read a paper entitled "Considerations in the Diagnosis of Lesions of the Billiary Tract." This paper was discussed by Dr. W. D. Haines, Cincinnati, Ohio.

The Indiana State Medical Association adjourned *sine die*.

CHARLES N. COMBS, Secretary.

CORRESPONDENCE

RED CROSS NURSING SERVICE

The American Red Cross,
National Headquarters,
Washington, D. C.,
September 9, 1924.

My Dear Dr. Bulson:—I want to thank you so much for your very kind consideration of my letter to you and for the way in which you have championed the intentions and policies of the American National Red Cross with regard to the ethics and technique of our public health nurses.

I appreciate more than I can say the very generous and fair statement you made with regard to this matter in the last issue of your Journal. I want to assure you that the Public Health Nursing Service of the American Red Cross will do its best to live up to your expectations. If public health nurses and doctors could come together

in the spirit you have shown, I am sure many of our more troublesome problems would be solved. I thank you for leading the way.

Yours sincerely,

ELIZABETH G. FOX,
National Director,
Red Cross Public Health Nursing Service.

DIVERTING FUNDS OF THE STATE MEDICAL BOARD

Hammond, Indiana,
September 15, 1924.

Editor THE JOURNAL:

In the past few years there has been much unjust criticism directed toward the Board of Medical Registration and Examination concerning the failure of said Board to prosecute all violators of the Medical Practice Act. It is true that the enforcement of the Act is charged to the Board, but it is equally true that the law does not make suitable provision for the necessary funds to bring about this enforcement.

During the period of my membership on the Board, about three years, we have made every effort to conserve our funds, all of which are derived from physicians seeking licensure in Indiana by reciprocity or examination, that we might create a sufficient reserve to enable us to make a determined effort to enforce the Medical Practice Act. Our fiscal year for 1923 ended on September 30th, at which time we had a net balance of \$6,225.97. However, under the Budget Act, passed by the 1923 legislature *this balance reverted to the general fund of the State Treasurer*. Thus was our reserve fund wiped out. The Budget Act limits the expenditure of the Board to \$7,000 per annum; all receipts above that amount are given over to the State general fund, each year.

It would seem that the funds of the Board, coming solely from the medical profession and not through taxation, should be left in the Board treasury. It is estimated that the report for 1924 will show approximately \$1,000 taken from the Board's funds and turned over to the State.

I would urge the members of the profession to use every effort to bring about some change in this law in the coming session of the legislature to the end that we may at least have the use of our own funds.

Very truly,

E. M. SHANKLIN, M.D.

ABSTRACTS

ROSENOW'S SERUM IN PREVENTION OF PARALYSIS IN ANTERIOR POLIOMYELITIS

During an epidemic of poliomyelitis in Omaha, Floyd Clarke and Andrew G. Dow (*Journal A. M. A.*, Aug. 9, 1924), had seventeen cases. All the patients received one or more injections of Rosenow's serum. In every instance when they were able to see the cases soon after onset, and an early diagnosis was possible, recovery was complete without paralysis.

REGIONAL ANESTHESIA Its Use in General Surgery

It is the belief of M. E. Bland, Cleveland (*Journal A. M. A.*, Aug. 9, 1924), that the use of local anesthesia is an established fact, not an experiment. Its supposed disadvantage, the effect on the mind of the patient, is a belief with no foundation in fact. Its use makes easier the work of the surgeon by causing complete relaxation of the patient's muscles. It eases the burden of the patient, by abolishing the surgical shock that may follow operation and by doing away with the usual disagreeable and often dangerous after-effects. Finally, it enables the surgeon to work with perfect safety on those for whom a general anesthetic would be extremely hazardous and might lead to fatal consequences.

GASTRIC SECRETORY DISTURBANCES

The results of a complete gastric analysis indicating gastric secretory disturbances, E. L. Eggleston, Battle Creek, Mich. (*Journal A. M. A.* July 26, 1924), holds are valuable from a diagnostic standpoint, but may be misleading unless correlated with other possibly more important findings. The fractional method gives a more definite picture of the secretory behavior of the stomach during the interdigestive as well as during the digestive phase, and should if possible replace the older methods of analysis. Hyperchlorhydria is not a valuable diagnostic finding, and is probably most frequently the result of motor disturbances giving rise to hypersecretion and with prolonged secretory stimulation. Achlorhydria or achylia gastrica is a much more important finding and is more suggestive of pathologic change. Definite conclusions as to an achlorhydria should not be determined on the results of one analysis. The findings of the Ewald test meal are much less reliable than the fractional analysis. Hypersecretion of such an extent as to cause disturbing symptoms, in our observations, is more frequently associated with motor disturbances, and its presence would warrant, in addition to a gastric analysis, careful roentgen-ray observation of the gastro-intestinal tract.

RECTAL DIGITALIS THERAPY

Digitalis was first brought into medical prominence by Withering in 1785; and in the intervening period it has become one of the most valuable agents at the disposal of physicians. Nevertheless, after surveying the experience acquired in the use of the drug during a century and a quarter, Cushny¹ felt justified in remarking: "I have been struck by the small amount of accurate knowledge we possess as to practical therapeutics." The uncertainties in the case of digitalis therapy have involved the kind of products to be preferred, the size of the dose, and the mode of administration. The methods of standardizing the preparations for therapeutic use have been greatly improved in the last decade; and the criteria of successful action have become more clearly indicated. Whereas subcutaneous or intravenous injections have offered a very effective mode of administering certain drugs that are required for urgent cases, such procedures have not found widespread favor. Fortunately, it appears that digitalis is probably absorbed rapidly and fairly uniformly from the alimentary tract of man, although some substances in the digitalis group, notably strophanthus products, are unsuited for oral administration.² However, nausea, vomiting or surgical operation may sometimes interfere with the use of digitalis by mouth. For such emergencies, Levy³ has demonstrated, at the Presbyterian Hospital, New York, that it may be administered with satisfactory outcome by rectum. In many patients with auricular fibrillation, the results were dramatically rapid and beneficial. The dose is comparable to that employed when a large single dose is given by mouth. Levy has found that most of the digitalis given by rectum reaches the heart by way of the mesenteric and portal veins, and not by way of the inferior vena cava. Rectal digitalis therapy is not intended to supplant the well established oral method of administration, but rather to be used as an emergency measure when the customary mode of introduction is not feasible.—*Jour. A. M. A.*, Aug. 9, 1924.

THE DIAGNOSIS AND MANAGEMENT OF HEAD INJURIES

The important points to be considered, according to Francis R. Holbrook, Des Moines, Iowa (*Journal A. M. A.*, August 16, 1924), are: Shock should be treated first. As soon as possible, the status of intracranial pressure should be determined by direct reading at lumbar

puncture, by examination of the eyegrounds, and by observation of symptoms. It should be determined whether pressure is stationary or progressive. Pressure should be relieved by spinal drainage or decompression. All depressed fractures of the vault should be operated on.

THE FOOD REQUIREMENTS OF MALNOURISHED INFANTS

Attention is drawn by W. McKim Marriott, St. Louis (*Journal A. M. A.*, August 23, 1924), to the large food requirements of malnourished infants, and he discusses the means by which these requirements may be met. It would appear that a malnourished infant would require almost as many calories, and as much or more protein and mineral salts, as a normal infant of the same age, but of considerably greater weight. This implies a much larger intake of food per pound of body weight. It has been Marriott's experience that very few malnourished infants do well unless they receive practically the same total amounts of food as normal infants of the same age. Unfortunately, a malnourished infant has a diminished digestive capacity, and it is not always possible to give such an infant sufficient food to meet his nutritional requirements. Attempts to meet the requirements with the use of ordinary sweet whole milk dilutions or cream mixtures are usually unsuccessful. Any form of feeding whereby the percentages of the different food elements are reduced below the amount required for the normal infant is predestined to failure, as the feeding of such diluted mixtures in the small total volume taken necessarily results in a food intake below the requirements. Cow's milk, acidified with lactic acid, and enriched by the addition of very considerable amounts of difficultly fermentable corn syrup, is also a readily digested food and of high caloric value. Some infants fail to gain even when the nutritional requirements mentioned above have been met, and, in these infants, it is necessary to resort to means for increasing the infant's capacity for utilizing food. The most effective means has been transfusion. Marriott gives such infants repeated transfusions of matched citrated blood. The amount given at a transfusion is about one ounce of blood for each three pounds of body weight (20 c.c. per kilogram). Very often an infant will begin to gain following transfusion, even though the feeding is not changed. Besides oral methods of administration of food, the intravenous method may be used. Glucose can be given intravenously in a 20 per cent solution, provided the injection is given slowly. The amount of the injection should be from one-third to one-half ounce of 20 per cent solution per pound of body weight (from 20 to 30 c.c. per kilogram). Glucose, given in this way, is only partly utilized; but if insulin is given at the same time, better utilization of the sugar occurs, and a gain in weight of the infant is the result. Marriott has found that the best results were obtained when considerable amounts were given. The method that has proved most successful in his hands has been the intravenous injection of a 20 per cent solution of glucose containing 15 units of insulin per hundred cubic centimeters. Such a solution has sufficient glucose to "buffer" completely the insulin, and we have observed no bad results. The injections may be given daily over a considerable period, and, in our experience, the results have been uniformly successful. A gain in weight almost invariably occurs, even in the case of infants suffering from infections. The weight gained is not subsequently lost when the injections are finally discontinued. Marriott has not used the insulin injection as a routine, but has reserved it for the most extreme cases of malnutrition or athrepsia.

THE MODERN EXAMINATION OF A PATIENT WITH CHRONIC INDIGESTION

The chairman's address, read by Franklin W. White, Boston (*Journal A. M. A.*, August 23, 1924), before the Section on Gastro-Enterology and Proctology at the Seventy-Fifth Annual Session of the American Medical Association is a review of means and methods of examination of patients, divided into (1) what we always do;

¹Cushny, A. R.: The Therapeutics of Digitalis and Its Allies, Harvey Lectures, 1910-1911, Philadelphia, J. B. Lippincott Company, p. 46.

²Eggleston, Cary: Digitalis Dosage, *Arch. Int. Med.* 16: 1 (July) 1915.

³Levy, R. L.: Rectal Digitalis Therapy, *Arch. Int. Med.* 33: 742 (June) 1924.

(2) what we usually do, and (3) what we occasionally do. Since one can rarely use all methods, good judgment is needed in selecting the tests to use in an individual case. Some tests are easy for the family practitioner, such as the taking of the history, the physical examination, the examination of the feces and perhaps the use of the stomach tube. Other tests, such as the roentgen-ray examination, or tests of liver or pancreatic function, usually mean a visit to a special or hospital clinic. New methods constantly appear and have to be sifted out with much time and trouble. This is laborious, but it is the price of progress. It is the part of the young workers to carry out these investigations. It is the part of the experienced clinicians to stimulate and supervise this work, and finally, to sum up the results in a critical spirit and see whether the new method is worth its salt. White thinks it will be a comfort to the practitioner to know that there is a strong and growing tendency to give up fractional examinations of stomach contents in routine work and to go back to the single one-hour test. In many leading clinics, fractional tests have been given up, except for the group of low acid cases, as not being worth the time they take, because they are less easy for the patient and because of certain definite objections, the most important being that the small fractions taken out are not representative of the stomach contents as a whole, because the latter are not well mixed. The test of the value of this and every clinical method is the question: Does it give enough added information to warrant its use? How quickly the use of ferments would drop if the family physicians tested their patients' stomachs and gave these preparations in only the small percentage of cases in which they are actually needed. A glance at the formulas of the manufacturers or at the prescriptions of physicians, shows that common facts in the physiology of digestion are disregarded and that ferments are combined and given to patients without much care or common sense. Most of the ferment formulas are harmless, but could not possibly help digestion. Bile drainage is discussed. The phenoltetrachlorophthalein test of liver function is endorsed as a valuable guide to the extent of liver damage in less severe types of liver disease, such as infectious jaundice, gallbladder infections with liver involvement, and post arsenamin cases. New and important work is now being done. Functional tests of the pancreas and roentgen-ray examination also are discussed. White is of the opinion that there is a tendency to study digestive cases less carefully, to take a less careful history, and make a less thorough physical examination, to omit tube tests and make no examination of the feces, but to send the patient at once to the roentgenologist and accept his report as final. Whenever there is a conflict between the clinical findings and the roentgen-ray report, the case needs careful study, as either method may be wrong. On the other hand, there are many cases in which the diagnosis could not be made without the roentgen-ray. It also gives information about peristalsis, tone, spasm, and the emptying of the digestive tract and about the condition of postoperative openings. The roentgen-ray examination tells us the exact position of the abdominal organs. The new phenoltetrabromphthalein test helps the gallbladder to cast a shadow on the photographic plate. An invisible gallbladder, or even a nest of stones, becomes clearly defined, and then fades again as the salt reaches the gallbladder and later disappears from it.

THE CURE OF SCARLET FEVER COMPLICATED WITH ERYSIPELAS AND STREPTOCOCCUS SEPTICEMIA

Hugh H. Young and Konrade Birkhaug, Baltimore (*Journal A. M. A.*, August 16, 1924), report two cases of scarlet fever in which good results accrued from the intravenous injection of mercurochrome-220 soluble. One case was an example of scarlet fever with the most malignant form of streptococcus infection; the other was a case of streptococcus pneumonia.

MELANOTIC NEOPLASMS OF THE EYE

Besides discussing melanomas generally, Mary S. Knight, Rochester, Minn. (*Journal A. M. A.*, Oct. 24, 1924), cites seven cases in which the eye was involved. She is convinced that wherever studied, melanin has been produced by ectodermal cells. In the fetus, the pigment granules in the eye are produced by the pigmented epithelium of the retina, which develops from the ectoderm. The choroid is of mesodermal origin, and the cells of the choroid do not produce pigment. Fibroblasts have been seen to phagocytose pigment granules in vitro. We may assume, therefore, that the chromatophores of the choroid are mesoblastic cells that have engulfed melanin. They merely carry pigment, which ectodermal cells have produced. Therefore, tumors, capable of producing pigment arising in the eye should be called melano-epitheliomas. Melanin is a product of well differentiated cells, and, therefore, is not produced by rapidly growing cells, which accounts for the lack of it in rapidly growing tumors of the eye. The cells in the slower growing melano-epitheliomas develop the characteristics of epithelial cells and produce abundant melanin.

TRUTH ABOUT MEDICINES

NEW AND NONOFFICIAL REMEDIES

MEDICINAL DYES.—The dyes which are used in medicine may be divided into five classes: (1) The azo dyes, of which scarlet red medicinal and scarlet red sulphamate are described in New and Nonofficial Remedies; (2) the acriflavine dyes, such as acriflavine, neutral acriflavine and proflavine; (3) the fluorescein dyes, usually combined with metal mercury such as mercurochrome-220 soluble and flumerin; (4) the triphenylmethane or rosaniline series, such as gentian violet, crystal violet, methyl violet and fuchsin, and (5) miscellaneous dyes, such as methylene blue, phenolsulphonaphthalein and tetrabromphenolphthalein. In order to obtain comparable results when employed clinically, dyes should be of constant composition. The triphenylmethane (rosaniline) dyes include fuchsin and the closely related violet dyes, gentian violet, crystal violet and methyl violet. Of these, gentian violet is the one that has been used chiefly in medicine. It is stated to have the property of great penetration; to be bactericidal also bacteriostatic in vivo toward selective organisms. Its chief use has been in the treatment of infections of the pleural cavity and of the joints. The intravenous use of gentian violet has also been proposed in staphylococcus septicemia, chronic cystitis, osteomyelitis.

GENTIAN VIOLET MEDICINAL.—A mixture of pentamethylparosaniline and hexamethylparosaniline chlorides. For direct application, a solution of from 1:500 to 1:1,000 may be employed; for instillation, a 1:10,000 solution. For intravenous use, 5 Mg. per Kg. of body weight, injected in 0.5 per cent. solution has been used.

GENTIAN VIOLET IMPROVED MEDICINAL.—A brand of gentian violet medicinal—N. N. R. Coleman & Bell Co., Norwood, Ohio.

GENTIAN VIOLET MEDICINAL—"NATIONAL".—A brand of gentian violet medicinal N. N. R. National Aniline and Chemical Co., New York.

INSULIN-STEARN'S QUADRUPLE STRENGTH.—Insulin-Stearns (see *Journal A. M. A.*, June 14, 1924, p. 1937), marketed in 5 Cc. vials containing forty units in each Cc. Frederick Stearns & Co., Detroit.

SULPHARSPHENAMINE-SQUIBB, 1 GM. AMPULES.—Each ampule contains sulpharsphenamine-Squibb (see New and Nonofficial Remedies, 1924, p. 68) 1 Gm. E. R. Squibb & Sons, New York.

SULPHARSPHENAMINE-SQUIBB, 3 GM. AMPULES.—Each ampule contains sulpharsphenamine-Squibb (see New and Nonofficial Remedies, 1924, p. 58) 3 Gm. E. R. Squibb & Sons, New York.

DIPHTHERIA TOXIN-ANTITOXIN MIXTURE (NEW FORMULA).—Diphtheria toxin-antitoxin mixture-Squibb (see

New and Nonofficial Remedies, 1924, p. 298) marketed in packages of thirty 1 Cc. ampules. E. R. Squibb & Sons, New York.

ANTISTREPTOCOCCIC SERUM-SQUIBB.—Antistreptococcus serum-Squibb (see New and Nonofficial Remedies, 1924, p. 305), marketed in packages containing one 10 Cc. syringe; in packages containing one 50 Cc. vial. E. R. Squibb & Sons, New York.

ANTISTREPTOCOCCIC SERUM RHEUMATIC-SQUIBB.—Antistreptococcus serum rheumatic-Squibb (see New and Nonofficial Remedies, 1924, p. 305), marketed in packages of one 20 Cc. vial; in packages of one 50 Cc. vial. E. R. Squibb & Sons, New York (*Journal A. M. A.*, Sept. 6, 1924, p. 767).

AMPULES PITUITARY SOLUTION-WILSON, 0.5 Cc.—Each ampule contains pituitary solution-Wilson (see New and Nonofficial Remedies, 1924, p. 229) 0.5 Cc. Wilson Laboratories, Chicago.

THIOSINAMINE.—Thiosinamina. Allylthiourea. Thiosinamine is being used against arsphenamine dermatitis. This use is still in the experimental stage. Thiosinamine was originally introduced to promote absorption of scar tissue, lymphatic swellings, etc. Its restricted use indicates that it has little if any value for this purpose. Although it is usually well borne, except for its bitter taste and acid eructation, it may produce toxic systemic effects, and these may set in suddenly after it has been used for a time without toxic effects.—(*Journal A. M. A.*, Sept. 13, 1924, p. 843).

ORIDINE.—The calcium salt of the iodized fatty acids of cottonseed oil. It contains from 23 to 25 per cent. of iodine in organic combination. Oridine acts in the system similarly to the inorganic iodides. The iodized fatty acid radicle of oridine is not decomposed in the stomach but a part of the iodine is split off when it enters the intestine. The undecomposed portion is readily absorbed and, as in the case of other fats, it is largely deposited in the tissues where it is slowly split up. As with other iodized fats, the action of oridine is exerted more slowly than that of the inorganic iodides. Oridine is marketed in powder and as oridine tablets for the prophylaxis of goiter, containing oridine equivalent to iodine 0.01 Gm. Eli Lilly & Co., Indianapolis.—(*Journal A. M. A.*, Sept. 20, 1924, p. 921).

RABIES VACCINE (HUMAN), PHENOL KILLED.—An antirabic vaccine (see New and Nonofficial Remedies, 1924, p. 306) prepared according to the general method of David Sempel. The product as sold contains brain substance, 2 per cent, and phenol 0.5 per cent, suspended in physiological sodium chloride solution. It is marketed in packages of fourteen vials and a syringe, and in a package containing twenty-one vials and a syringe. Jensen-Salsbery Laboratories, Inc., Kansas City, Mo.—(*Journal A. M. A.*, Sept. 27, 1924, p. 1001).

PROPAGANDA FOR REFORM

BioFood.—This is a "patent medicine" combination put out by a concern that seems to go under various names: "Biochemical Food Products Corporation," "Bio-Products Company," and "BioFood Corporation." BioFood has been shrewdly and cleverly marketed. The impression is given that the stuff is a food and not a medicine. Its high price—ten dollars a treatment—impresses the public with its value. The treatment consists of a box labeled "A" and two bottles labeled, respectively, "B" and "C". BioFood is sold with the claim that our bodies are composed of twelve tissues containing sixteen elements, that our foods are deficient in these elements, and that BioFood supplies this deficiency and thus "builds up the body by supplying all the elements which nature intended man to have and thus gives nature a chance to create her own antitoxins and effect a cure." BioFood has been advertised extensively in newspapers, in self-styled medical journals and by cruelly mendacious advertisements in the Chicago street cars. The A. M. A. Chemical Laboratory reports that BioFood "A" may be considered to be composed essentially of milk sugar and flavoring in which has been

incorporated small amounts of iron, calcium and manganese salts and phosphate, either as such or in combination such as glycerophosphate. The Laboratory found BioFood "B" to be tablets which may be considered to consist essentially of potassium acetate, sodium chlorid, sodium sulphate and sodium citrate. BioFood "C" was a liquid resembling solution of iron and ammonium acetate, U. S. P., modified by the addition of very small amounts of calcium, magnesium and sodium and phosphate compounds.—(*Journal A. M. A.*, Sept. 6, 1924, p. 782).

THE BAN ON HEROIN.—As long ago as 1917, the Council on Pharmacy and Chemistry deleted heroin from its handbook of Useful Drugs, saying "The Council holds that heroin has no advantage over morphin; that it has every disadvantage of morphin; and that on the whole its introduction has been harmful, in that it furnished a specious means on the one hand of avoiding the well founded popular fears of morphin by substituting another habit forming drug." In 1920 the House of Delegates resolved, "That heroin be eliminated from all medicinal preparations; that it should not be administered, prescribed or dispensed; and that the importation, manufacture or sale of heroin should be prohibited in the United States." The recent Congress enacted, June 7, 1924, a bill prohibiting the importation of opium intended for the manufacture of heroin. The Federal Narcotic Control Board has announced that it will not authorize the importation of any opium intended to replace opium or morphin thereafter converted into heroin. This will prevent the open manufacture of heroin in the United States, and as none can be imported lawfully, heroin will soon disappear from the legitimate market.—(*Journal A. M. A.*, Sept. 6, 1924, p. 784).

"P-O-4" NOT ADMITTED TO N. N. R.—The Council on Pharmacy and Chemistry reports that "P-O-4" is the proprietary nondescriptive designation under which Lehn & Fink, Inc., New York, market a preparation alleged to be a mixture of two parts of tribasic magnesium phosphate and one part of tribasic calcium phosphate. The preparation is claimed to be a "therapeutically balanced" mixture which is "A New Antacid for symptoms of hyperacidity, such as 'acid' stomach, pain, heartburn, acid regurgitation, distress and gas." The Council explains that, in order that a correct estimate of the therapeutic value of tertiary magnesium phosphate and tertiary calcium phosphate may be gained, it is important that physicians use them under their proper names and base the selection of one or the other on the requirements of the particular patient. The Council found "P-O-4" inadmissible to New and Nonofficial Remedies because the use of a mixture of tertiary calcium phosphate and tertiary magnesium phosphate in fixed proportions under a nondescriptive name is irrational and the claim that it is "a therapeutically balanced" mixture is unwarranted.—(*Journal A. M. A.*, Sept. 13, 1924, p. 861).

THE FORTHCOMING U. S. PHARMACOPEIA.—The committee elected in May, 1920, for the revision of the United States Pharmacopeia has practically completed its work. The responsibility for the scope of the new book was placed on the twenty-one physician members of the committee so that the new edition should be more fully representative of the therapeutically valuable drugs than formerly. The number of medicinal substances to be included in the book is less than 650. Among the additions are acetyltannic acid, acetylsalicylic acid, barbital, phenobarbital, albumin tannate, amidopyrin, strong silver protein, mild silver protein, arsphenamin, ethylamino-benzoate, barium sulphate, calcium iodobehenate, carbon tetrachlorid, carbromal, chloramin, chlorinated paraffin, dextrose, dichloramin, epinephrin, neoarsphenamin, chaulmoogra oil, phenolsulphonphthalein, procaine hydrochlorid, quinidine sulphate, quinine ethylcarbonate, sodium diphosphate, barbital sodium, whiskey, brandy, thyroxin. Most of these are products of recognized therapeutic or diagnostic usefulness. Many of the preparations are already described in Useful Drugs and a still larger number are included in New and Nonofficial Remedies.

(Continued on Adv. Page xx)



In Surgical Sutures

SATISFACTION lies in strength, sterility and uniformity of absorption, features to be attained only when the smooth or detached side of selected sheep gut is employed. Right now the price of raw material is very high. Some manufacturers are evening up things by using the mesenteric as well as the smooth portion of the intestine. None of the cardinal qualities can be guaranteed when the rough side is employed. This is obvious to the man who has studied the manufacture of catgut.

In the Armour Laboratory nothing but the smooth, straight side of the gut is put into surgical ligatures. This material is sterilized chemically and thermally at opportune stages and finally the finished suture is, after being placed in tubes, subjected to a degree of heat that means death to all spores and organisms.

The Armour Non-boilable Catgut Ligatures are as flexible as a silk cord, and are of full strength and absolute sterility.

Specify Armour's Non-boilable Catgut Ligatures. You will be satisfied.

PITUITARY LIQUID (Armour)

the Premier Product of the kind, 1 c. c. ampoules—surgical, ½ c. c. ampoules—obstetrical.

SUPRARENALIN SOLUTION 1:1000

Astringent and hemostatic.
Stable and non-irritating.

Headquarters for the Endocrines
and other Organotherapeutics

ARMOUR AND COMPANY
CHICAGO

WALLACE-SOMERVILLE SANITARIUM

Succeeding the Petty & Wallace Sanitarium

MEMPHIS, TENN.

WALTER R. WALLACE, M.D.
WILLIAM G. SOMERVILLE, M.D.

FOR THE TREATMENT OF

**DRUG ADDICTIONS, ALCOHOLISM
MENTAL AND NERVOUS DISEASES**

Located in the Eastern suburbs of the city.
Sixteen acres of beautiful grounds.
All equipment for care of patients admitted.



Louisville Neuropathic Sanatorium

INCORPORATED

1412 South Sixth Street, Louisville, Kentucky

An ethical institution with modern equipment for the care and treatment of Mental and Nervous Diseases. Situated in residence portion of the city, yet quiet and retired. Rates furnished upon request.

W. E. GARDNER, A.B., M.D.

Medical Director

W. E. RENDER, M.D.

Resident Physician



TRUTH ABOUT MEDICINES

(Continued from page 366)

In many cases the descriptions and standards in New and Nonofficial Remedies have been adopted for the new Pharmacopeia. In the new book obligatory biological tests are given for the following drugs and their preparations: Aconite, cannabis, digitalis, epinephrin solution, ergot, pituitary solution, squill and strophanthus. With many of the useless or doubtfully valuable drugs eliminated and with the addition of a number of substances of demonstrated merit, the new Pharmacopeia will deserve greater support from the medical profession than has been the case with previous editions of the book.—(*Journal A. M. A.*, Sept. 20, 1924, p. 923).

THE SCIENTIFIC AMERICAN ON ABRAM'S "ELECTRONIC REACTIONS."—In October, 1923, the *Scientific American* announced that it was undertaking an investigation of the "Electronic Reactions of Abrams" and electronic medicines in general. The *Scientific American* has published twelve papers and the last has now appeared. The result of the exhaustive investigation of the committee may be summed up: The electronic reactions of Abrams and electronic medicine in general is found utterly worthless. This is expressed a little more in detail in the opening paragraph of the last article: "The so-called Electronic Reactions of Abrams do not exist—at least objectively. They are merely products of the Abrams practitioner's mind. These so-called reactions are without diagnostic value. And the Abrams oscilloclast, intended to restore the proper electronic conditions in the diseased or ailing body, is barren of real therapeutic value. The entire Abrams technique is not worthy of serious attention in any of its numerous variations. At best, it is all an illusion. At worst, it is a colossal fraud."—(*Journal A. M. A.*, Sept. 20, 1924, p. 939).

MERCUROCHROME-220 SOLUBLE AND GENTIAN VIOLET INTRAVENOUSLY.—Reports on the intravenous use of mercurochrome-220 soluble and of gentian violet have been published. These drugs, when administered intravenously, are used in recently prepared aqueous solution. Of mercurochrome, 5 mg. per kg. of body weight appears to be generally used. It is used in a one per cent solution. Of gentian violet, 0.25 per cent of an aqueous solution is used; the dosage being 5 mg. per kg. of body weight. Mercurochrome-220 soluble marketed by Hynson, Westcott & Dunning, Baltimore, gentian violet medicinal—"National" of the National Aniline and Chemical Co., New York, and gentian violet improved medicinal of Coleman & Bell Company, Norwood, Ohio, have been accepted for New and Nonofficial Remedies.—(*Journal A. M. A.*, Sept. 20, 1924, p. 942).

HECTINE.—Hectine is said to be sodium benzosulphoaminophenyl-arsenate and, therefore, is similar in composition to the product "Atoxyl". Atoxyl is one of a class of arsenical preparations, the use of which has been generally discontinued in favor of the products of the arspenamin type. Hectine has not been accepted for New and Nonofficial Remedies, nor has the American agent, George J. Wallau, Inc., requested such recognition by the Council on Pharmacy and Chemistry.—(*Journal A. M. A.*, Sept. 20, 1924, p. 942).

ASTHMA-TABS.—The Asthma-Tabs Laboratories of Kansas City, Mo., conducts a piece of mail-order quackery in the sale of an alleged cure for asthma known as "Asthma-Tabs". The point of contact between quack and victim is, as usual, the venal or careless newspaper or magazine which sells its advertising space to herald the false statement of the Asthma-Tabs promoter. As usual, trial treatments are offered at a sliding scale of prices. The A. M. A. Chemical Laboratory analyzed this alleged "asthma cure" and concluded that each "Asthma-Tab" contains the equivalent of potassium iodid, 0.35 gm.; potassium sulphate, 0.15 gm.; arsenic trioxid, 0.0005 gm. Thus this asserted new discovery contains as its essential constituents two drugs—potassium iodid and arsenic trioxid—that have been used for a generation in the treatment of asthma and may easily both be harmful and dangerous when used without care or ignorance of their action.—(*Journal A. M. A.*, Sept. 27, 1924, p. 1018).

GUAISODIDE.—No report of Guaisodide of George A. Breon has been published by the Council on Pharmacy and Chemistry and no product of the firm has been accepted for New and Nonofficial Remedies. Many of the preparations of the Breon Company are intravenous specialties marketed under nondescriptive proprietary names. Some of these bear a strong resemblance to intravenous specialties that have been the subject of adverse reports by the Council on Pharmacy and Chemistry. Thus Guaisodide is similar in composition and claims to "Venodine", which was reported on adversely by the Council. Like Venodine, Guaisodide is stated to be a solution containing sodium iodid, guaiacol and creosote. The report of the Council on Venodine brings out that there is no reason for resorting to the intravenous administration of iodids. Further, the Council pointed out that the indiscriminate administration of iodids for pulmonary tuberculosis is strongly to be condemned. Also, the Council holds that there is no evidence to warrant the intravenous administration of guaiacol and creosote and that the combination of two such similar substances as creosote and guaiacol (the second a constituent of the first) is irrational.—(*Journal A. M. A.*, Sept. 27, 1924, p. 1021).

Indiana State Medical Association

(Continued from Adv. Page viii)

ENTERTAINMENT COMMITTEE—John R. Newcomb, Indianapolis, Chairman; A. L. Marshall, Indianapolis; Ernest Rupel, Indianapolis; John Sluss, Indianapolis.

FINANCE COMMITTEE—Alfred Henry, Indianapolis, Chairman; Harry Langdon, Indianapolis; E. E. Padgett, Indianapolis; W. W. Garshwiler, Indianapolis; Robert Moore, Indianapolis.

HOTEL AND HOUSING COMMITTEE—A. E. Guedel, Indianapolis, Chairman; LaRue Carter, Indianapolis; A. B. Graham, Indianapolis; C. R. Strickland, Indianapolis.

GOLF COMMITTEE—W. S. Tomlin, Indianapolis, Chairman; H. H. Wheeler, Indianapolis; Goethe Link, Indianapolis; Thos. L. Sullivan, Jr., Indianapolis.

PUBLICITY COMMITTEE—Thos V. Keene, Indianapolis, Chairman; Norman Jobs, Indianapolis; J. H. Taylor, Indianapolis; Thos. J. Beasley, Indianapolis; C. S. Goar, Indianapolis.

MEETING PLACE COMMITTEE—Charles N. Combs, Terre Haute, Chairman; Wm. A. Doeppers, Indianapolis.

RECEPTION COMMITTEE—All members of Indianapolis Medical Society.

MILITARY COMMITTEE—J. R. Eastman, Indianapolis, Chairman; LaRue D. Carter, Indianapolis; W. M. Stout, Newcastle; Charles N. Combs, Terre Haute; Carl Habich, Indianapolis; R. G. Hendircks, Indianapolis; J. S. Robison, Winchester.

BUREAU OF PUBLICITY—W. N. Wishard, Indianapolis, Chairman; F. W. Cregor, Indianapolis, Secretary; David Ross, Indianapolis; J. H. Stygall, Executive Secretary.

ADVISORY BOARD TO BUREAU OF PUBLICITY—(Appointed by Council)—S. E. Earp, President Indiana State Medical Association; E. M. Shanklin, Chairman of the Council; A. E. Bulson, Jr., Editor *Journal of the Indiana State Medical Association*.

THE JOURNAL

OF THE

INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

ISSUED MONTHLY under Direction of the Council

ALBERT E. BULSON, Jr., B.S., M.D., Editor and Manager

OFFICE OF PUBLICATION: 406 West Berry Street, FORT WAYNE, INDIANA

VOLUME XVII

NOVEMBER, 1924

NUMBER 11

ORIGINAL ARTICLES

CONCERNING THE PAST, PRESENT AND FUTURE OF MEDICAL ECONOMICS*

SAMUEL E. EARP, M.D.
INDIANAPOLIS

Economic medicine during the endless change in the practice of medicine is a question of the greatest moment. The Prince Albert coat and silk hat long since have been placed in the discard and their psychology has vanished. With the rapid means of transportation a doctor's horse and buggy is a curiosity. The cities are overcrowded with physicians while the rural districts are not amply supplied. Perhaps one of the reasons for the scant supply of physicians in the smaller towns is caused by the use of the automobile. By this rapid means of transit physicians of the city lose but little time in making a visit to a patient in the country and for the same reason many of the residents of a rural community come to a nearby city for medical advice. The recent graduate is well versed in laboratory technic and other means of diagnosis and hence there has been an unrest among the physicians of the smaller cities. The people have awakened very slowly to a realization of this fact and now almost every city of 5,000 inhabitants has a hospital of its own where good work is being done both in medicine and surgery. This cannot be done in the smaller settlements and it is said that it takes a longer time to establish a practice in proportion to the miles traveled and the time consumed and a physician is not fully compensated.

The economic features in the city which relate to the practitioner of medicine are problems which are yet unsolved. The recent graduate is so overwhelmed with the great mass of material which has been presented for his consideration during his college course that he fears if he enters the practice of medicine his earnings will be too small for his livelihood and there is a temptation to take a few months' course at a post-graduate school and establish himself as a full-fledged specialist with a hope of larger fees. It

would be far better for every graduate to have several years' experience in the practice of medicine before entering into the practice of a specialty. It has even been said by some of our eminent educators that no physician should enter into the practice of a specialty until he has served an apprenticeship. I think this has been emphasized more by the surgeons than by the men of medicine.

There are certain economic features which are responsible for the great change that has taken place in the character of the practice of medicine resulting in an unrest and which may prove a discouragement not only to the new graduate but to those who have been in active work. In former days, and in fact until recently, the general practitioner was called to see any one who was sick no matter whether it was at a home, or an emergency having taken place during a shopping tour. As conditions now exist emergency cases are taken in an ambulance to some hospital.

Nearly every industrial concern employs some doctor. Every department store, hotel, fraternal and civic organization also has its own doctor. Most of these physicians receive a nominal fee. A general practitioner is called to see none of these sick persons and hence he does less practice than in former days, and the newer generation feels the effect more than do those who have been established for a number of years and do work as consultants.

This economic change has brought a hardship to some of those who are now in practice and has proved a discouragement to others who have contemplated entering general practice. What the future will be cannot be foretold.

The fees for an insanity commission, witness fees in court, and insurance examinations as a rule compensate a physician so poorly that if he sacrifices his time to give them his attention he belongs to the underpaid. The fee allowed a physician in an insanity commission is less than he receives for a visit to see a patient and yet he makes a careful physical examination. On the witness stand a physician utilizes the knowledge which he has obtained at the cost of thousands of dollars and many years of experience giving an afternoon's work for a pittance and yet the law compels him to do this.

*Presidential address delivered before the Indiana State Medical Association at the Indianapolis Session, September, 1924.

In addition to such conditions there is an increase in the expense of every physician and no more flagrant example need be given than the three dollar fee that the government asks the physician to pay for the privilege of prescribing remedial agents for a patient suffering pain. It is evident that the physician stands the brunt of instances of this character. The state and government, both in laboratory and in dispensary, do work free for which a physician should receive a fee. This means that the time has arrived for a readjustment of affairs so far as the practice of medicine is concerned. The sentiment of the people seems to sanction certain cults who are ignorant and uneducated, which naturally deducts from the living of the scientific physician. Physicians are, in a sense, responsible for not taking their patients into their confidence by telling them more about themselves, the disease which is responsible for their sickness and the impossibility of the cults being competent to treat people when they are sick. It is fair to presume that if the people understood the situation the legislatures might not receive their support favorable to laws that are a detriment to scientific medicine.

Follansbee, in the *Ohio State Medical Journal*, in commenting upon the excitement, restlessness, and dissatisfaction that seems to be abroad among the people, gives a warning against being drawn into the whirlpool of desires to the detriment of the time-honored and respected ideals with the hope that professional idealism will not be converted into business acumen and trades union.

A large proportion of our population has sought the care of clinics and welfare associations and more and more is the practice of medicine invaded by governmental, social and welfare organizations, to the ultimate harm, as we believe, not only to the profession but also the people and commercialism on the part of the individual doctor will promote that movement which we recognize as a menace. It must be truthfully said that only the very rich and the very poor can receive adequate medical care.

Economic conditions point in another direction. The recent graduate in medicine has spent seven years in obtaining his education at an expenditure of more than ten thousand dollars, some of which may have been borrowed money. Very often it is with some difficulty that he obtains a practice. Perhaps he is thirty years of age before he is well established and he has a less number of years to prepare for old age than is offered by any other vocation. If he goes to a rural district the question of compensation adequate to meet his needs is sometimes a serious one and if he makes a scant living he soon wants for himself and family the advantages of a city. If such a community desires to keep a physician it must meet the demands of social and economic conditions. It is true that colleges have met the objection that the people

have in a new practitioner the lack of experience, by devoting the last years to bedside clinics and actual work done in the dispensaries under the supervision of an experienced doctor, so that the new graduate is especially qualified and these young men are better than their fathers.

This brings to mind the statement that the general practitioner is rapidly passing. This is not wholly true but the older men have been undergoing a process of evolution. They have seen the handwriting on the wall showing that a process of elimination was near at hand and there must be a survival of the fittest. This has been overcome by attending post-graduate courses at some medical school and many of the county medical societies hold such a course with meetings each month. Consequently there has been a halt in the passing problem and the older practitioners with a founded experience by taking instruction have opened a new era whereby the family physician rather than enter the discard has by this process of evolution become more competent than his predecessors and has entered a higher plane in the practice of medicine.

I desire to give my unqualified endorsement to periodical examinations. It is a high-light in preventive medicine and someone has suggested that on the anniversary of the birth of every individual a thorough physical examination should be made. If this is done the diseases which are recognized only when pronounced symptoms appear giving a dangerous inroad of disease would be prevented. In the near future I predict that this method will be universal. Great credit is due the *Journal of the American Medical Association* for its campaign in this direction and equal credit is due for the publication of the magazine known as *Hygeia*, which should be in the hands of every society, club, school and similar organizations. It is a safe educator of the people and gives them an understanding of scientific medicine and what it is accomplishing.

Dr. William A. Pusey, in his presidential address before the American Medical Association June 24 and published in the *Association Journal*, points out certain social problems which have an important bearing showing the trend from individualism and that our civilization is committed to a sort of socialism to the effect that the economically fit and competent shall take care of the weak and inefficient. Elimination of the unfit would take away from the individual a function of society as a whole and medicine would cease to be a liberal profession and would degenerate into a guild of dependent employees, which means that we are not ready for state medicine, but Dr. Pusey says that it is better to entertain a gloomy fact than a cheerful fiction.

He also speaks of the seemingly inevitable outlook that we cannot produce the physicians who go out and do every day work of practising medicine, and industrial and socialized expedients

come into light. For this there should be a remedy and this condition of affairs is to be deplored. Whether there is too much ground covered by the college curriculum or whether it has other imperfections is a matter to be considered. Whether enough attention is given to medicine, that is to prepare the graduate to care for the wants of the people, is another question that needs careful thought and, too, whether the glare of other departments dim that of medicine.

Dr. Pusey speaks of certain methods of shortening the medical course, but I have not the time to discuss that portion of the subject, suffice to say that whatever remedy is applied the standard of scientific medicine must in nowise be lowered.

The thing that is especially needed at this time is for the recent graduate to be amply prepared and have a willingness to treat the people when they are sick and not make it necessary to require the attention of half a dozen doctors in the ordinary case of sickness and that is what the people demand. This trend of affairs has brought forth criticism and has been one of the features that has brought the cults into the favor of the people. There are conditions when the specialist is needed and the practicing physician should be so skilled as to recognize when that time is at hand, but ordinarily he should be able to manage the average case of sickness.

What people want is a doctor who will utilize every means to determine the cause of their sickness and to know how to effect a cure. We must acknowledge the advancement that medicine has made and the importance of the aid of all means of precision but there are those who feel that the practitioner of today has too limited a field and rather than depend upon himself he too often feels the need of other persons and means to help out. This is an advantage and by no means a detriment, for the utilization of every modern method to better diagnosis and cure adds to the promotion of the practice of medicine. While this is true there are those who still feel as if something could be learned from the life work of the old family physician who had rare qualities of mind and heart, who managed his cases well, who was the one to be called for counsel and held the confidence of the family from birth to matrimony. Perhaps love and devotion may not effect a cure but it would be difficult indeed to convince some persons not belonging to the newer generation that the old family physician did have as difficult cases as is true in the case of newer practitioners. We must not take a step backward nor fail to realize the advantage of today compared with twenty years ago but we must confess that there are some things we can unlearn and it would be a very great advantage both to the doctor and patient to accept some of the methods of the old family doctor.

If the old family doctor is passing away, then it has often been said that the close relationship

of the doctor and family will also pass away with him. Some have said that evidence still remains but less pronounced than when the old family doctor brought sunshine and gladness into households.

There are those who have opposed the maternity act and perhaps with good reasons. The maternity act is expected to lessen mortality and apparently leads to state medicine and it is doubtful whether there will be a lowered mortality. There seems to be a larger expenditure of public money for work that in reality belongs to the individual. If Congress broadens the bill it is fair to presume that the President will veto it since he shows a tendency to lessen unnecessary expenses of the government.

It would consume too much time to suggest a remedy for some of these untoward conditions but the change in the practice of medicine will be more pronounced in the near future and perhaps not to the advantage of the people or the physician. Adequate laws must be passed for the protection of the people and it should be so understood, but it is very commonplace for the rank and file to oppose certain medical measures presented to the legislature with the argument that they are to protect the physician only. I believe that the people should have a right understanding of the incompetency of the cults who are physicians in name only. This can be accomplished by the physician taking the people into his confidence and showing them the position of medical pretenders who are uneducated and not entitled to their support. I have no doubt that the people if given light on this subject will easily recognize that their salvation depends upon scientific medicine and that those who follow this line of procedure must be given better support otherwise the time will ultimately come when the scientific general practitioner of today will not exist. The number of general practitioners at this time are fewer compared with some years ago. It is true that people get service from the younger men who practice medicine for a short time before they go into a specialty and there are those who are exploited as specialists, yet do general practice. In order for the people to get the medical attention that they desire and should have, it has been necessary almost for some of the specialists to do general work. However, if every specialist would confine himself to his special line of endeavor and if the recent graduate does care to go into general medicine as now seems to be the trend, it will be a hardship for the people. Cults are springing up everywhere and under these conditions would reap a greater harvest than they are now doing. It has been suggested that the medical college course covers a field that confuses the undergraduate, much of which is not needed in the practice of medicine but a larger portion of the work is necessary for those who expect to do a special line of work. Furthermore, since it can be shown

that more general practitioners are needed and a less number are entering this line of endeavor medical college authorities should encourage their students to enter the practice of medicine and especially prepare them for such work. If there are useless branches now taught so far as the needs of the medical practitioner is concerned there may come a time when there will be a medical course for the general practitioner and one for the specialist and it is quite possible that the post-graduate course so often needed will be followed by a diploma.

The field of the general practitioner is very limited in comparison with twenty years ago and the recent graduates hesitate to make medicine his life work. He readily recognizes that the amount of money received by the general practitioner is a pittance compared with the specialist. The public must depend upon the general practitioner and hence colleges should put forth an effort to interest their students in medicine, on the other hand the laws of the land are becoming more stringent as they relate to the doctor of medicine. It takes more time and more money to become a scientific medical practitioner, and since the public is dependent upon the medical man he should receive their support exclusive of medical pretenders who meet lowered requirements or none at all. I am convinced that all men who treat the sick should be on an equality before the law, which is not the case now, and I think it is reasonable to conclude that the people should be given so clear an understanding of scientific medicine that men who give years to the study of medicine and who graduate from the higher institutions of medicine and comply with every law putting forth every effort to accomplish the best results in the treatment of the sick should have the unqualified support of the public.

TRACHOMA AT ITS WORST AMONG THE BLACKFEET INDIANS*

L. WEBSTER FOX, M.D.
PHILADELPHIA

Perhaps no other disease within the history of medicine has received the attention from writers, as well as from practical clinicians, as has this terrible affliction. Its epidemiological aspect, its military significance, its sociological influence, and its direct physical effect, all have been the subject of elegant, and not so elegant, prose at the hands of the ancient, medieval, and modern scribes, and the end is not yet! In every field of literary endeavor, the story is the same tragic one. Tragic for the patient mostly, and not always encouraging for the medical or lay caretaker.

Many eyes have been strained looking for the

direct causal agent; microscopes have been almost worn out in the endeavor to isolate a distinct micro-organism, but the end result has been controversy and discussion, discussion and disagreement. But the general conditions under which this factor thrives and propagates have been determined, and a lessening of the incidence of the disease has followed in very marked degree in those regions where these factors have been appreciated properly.

These general conditions are such as attend poverty and overcrowding, and may also be produced when ignorance permits of the imitation of the features of poverty and overcrowding. Now rather widespread intelligent understanding has eradicated many of these conditions, but this has followed in the wake of the general prosperity of the civilized white race, rather than as the result of special definite efforts directed against the individual scourge—trachoma.

Despite this lessening in the incidence of the disease, when it does occur it is the same disease as it was in the days when Tut-Ankh-Amen plucked the timid lotus bud from the banks of the Nile and tossed it airily to his blushing favorite to wear in his memory.

The disease shows little inclination to assume an attenuated form. This feature of trachoma is very important. It explains why there are still being written, and read, papers concerning the treatment of the disease. It affords excuse for the irregular, and likewise the regular but unprincipled practitioners, claiming remarkable cures for trachoma, cures which have as their real basis erroneous diagnoses.

Therefore, one case of trachoma is as important as a hundred in some respects, since its potentialities are so enormous. One hundred cases will be recognized rather quickly, while *one* will be ignored and the infection will be spread in several directions before its true character is recognized. These disseminated cases are usually of greater severity in modern communities than the group cases in the same communities. This sounds strange but can be substantiated readily. A digest of the statistics will show that saturation is reached when 33 1/3 per cent of a community is affected. Therefore it must be inferred that some individuals possess a natural resistance to the disease.

The military type of the disease has been eradicated insofar as our country is concerned. Our institutions, barracks, prisons and orphan asylums have been brought to such a high grade of hygiene and sanitation that the epidemic form in this connection is negligible in amount.

But scattered throughout our country there exist, especially in the mountain districts and on the Indian reservations, foci which, despite the consideration of the public health service and other Federal agencies, tend to persist and increase.

*Presented before the Section on Ophthalmology and Otolaryngology of the Indiana State Medical Association at the Terre Haute Session, September, 1924.

It should be remembered in this connection that trachoma is one of the few diseases that we encounter that shows no tendency towards spontaneous involution. It is a progressive disease, beginning as a purulent inflammation of the conjunctiva and maintaining itself by exuberant granulations which are replaced by scar tissue, incidentally giving rise to corneal and lid complications, and ultimately followed by contracting scars, all of which tend to destroy sight.

The ill effects of the disease are due primarily to the granulations. The normal function of the tarsal cartilage being to keep the upper lid in close contact with the globe of the eyeball, likewise keeps the diseased lid in closer contact with the globe and intensifies the bad effects of the granulations upon the sensitive cornea. These points are very important! Exuberant granulations on the conjunctiva of the upper lid from any cause may be followed by scar formation and corneal complications, and consequent disastrous results to vision. The prolonged use of eserine

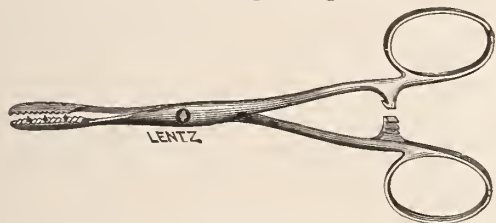


Figure 1

has been observed to cause granulations of this character in certain cases. These facts are of great importance, and serve in great measure to explain the attitude of the various health agencies, in cases in which the diagnosis is not clear and distinct.

In other words, it matters very little, from a practical and from a public health standpoint, whether a given case conforms absolutely in history to the definition and description of the text book case or not, since granulations follow the same course insofar as the individual patient is concerned. They may not have any group significance, but the individual import is just as great. Consequently, many doubtful cases will be handled by the public health officials and agencies as true cases, amidst resentment and vituperation on the part of the patients and their friends, and the natural born enemies of public health interference.

A large experience among the foreign born, in the eastern part of the United States, as well as among the Indian wards at the Carlisle School and in the reservations in the west, has brought to my mind the conclusion that the individual with trachoma, or better, trachoma in the individual is as great a problem in this country as group trachoma, whereas abroad group trachoma is by far the greater problem.

In Philadelphia group trachoma is well in hand.

The new cases indigenous to the community are few indeed, and the foreign cases, those from other cities and states, number but very few more. But the clinics will show quite a large number of old chronic cases, the same cases go from hospital to hospital, and if one has the time to spend in the several large clinics in the city, he will see the same group migrate from one institution to the

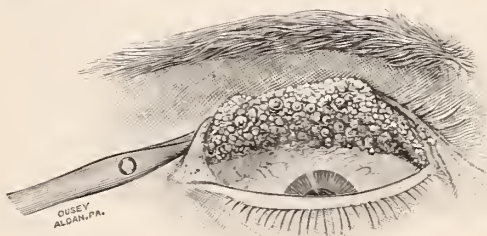


Figure 2

other. The Health Department keeps a record of these cases, and the social service of the several hospitals follow them up, looking for new cases, but fortunately find very few. New cases from abroad are prevented entering the city by the Federal government.

Our immigration laws and our hygienic and sanitary schools have removed from our midst the epidemic class. But in the absence of new cases, we find persistence of the old in considerable numbers, thus reflecting greatly upon our curative methods, and it is of the treatment of these cases that we desire to speak in this paper.

Any number of treatments have been devised for chronic granular conjunctivitis, with and without discharge, all depend upon persistence in treatment, all require a more or less protracted period of application. Every medicament known to the practice of medicine is included in this therapy. The old trachoma patient has had his fill of them. Unless the new treatment brings a result promptly, he is through with it! This is especially true of the North American Indian.

It is from our remote as well as recent results with the pupils from the Carlisle School that we conclude that the treatment we now advocate meets



Figure 3

all requirements. We have found our cured cases on the reservations as long as fifteen to twenty years after treatment in Philadelphia at the Medico-Chirurgical Hospital. In fact, our reception by the Indians of the Blackfeet Reservation during the past two summers is in large part due to these early successes.

Appreciating the fact that our position brings to us cases that have been previously under considerable medication, and that our work is necessarily expected to be of a surgical character, we

have come to summing up our treatment in the recital of the technic of two operations: GRATTAGE, and EXCISION OF THE TARSAL CARTILAGE after the methods advocated by Kuhnt and Heistrath.

Grattage as proposed by Darier requires for its performance general anesthesia, after which the lid is everted by a special kind of forceps (Darier forceps), which permits a second turn of the cartilage, thus exposing the disease in the fornix which is usually overlooked. A horn spatula is then placed beneath the lid to protect the cornea. Without reaching into the fornix all methods devised to destroy the granulations are useless. The entire diseased area must be brought into view. The granulation area is then scarified by a three-blade knife (Darier knife), the

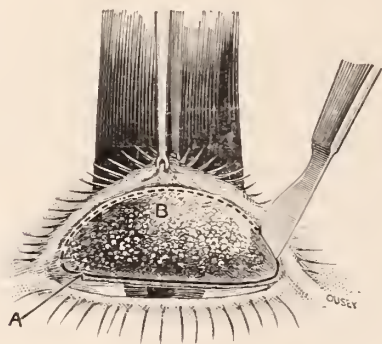


Figure 4a

three blades making the procedure shorter in duration. The abraded and scarified area is then brushed very vigorously with a 1 to 2,000 bichlorid of mercury solution by means of a stiff tooth brush until the previously reddened area is blanched, following with a pledget of sterile gauze. An antiphlogistic lotion* is then applied. Reaction is not very great, but the relief afforded when the operation is done thoroughly is considerable.

The best results follow this operation when the cases are rather recent and when scarring of the cornea and conjunctiva are not very pronounced. The disease must be in the granular stage however. In the absence of demonstrable granulations, it would be the height of folly to perform it. It has the great advantage of simplicity and anyone may feel competent to perform it, bearing in mind that complete eversion of the conjunctiva of the upper lid is essential.

* EXTERNAL LOTION			
Liquor plumbi subacetatis dil.	.	.	3 ii
Tincturæ opii	.	.	
Tincturæ belladonnæ aa	.	.	5 iss
Tincturæ aricæ	.	.	3 i
Aquæ camphoræ	.	.	
Aquæ destillatæ aa q. s. ad.	.	.	3 iv
M.			

Sig.—Apply locally as directed.

Concerning resection of the tarsal cartilage, the first step in the development of this line of treatment may be accredited to Rickét, of Paris, when he excised the diseased conjunctiva of the upper fornix in 1874. It was not until Heistrath in 1882 (Berlin klin. Wochenschrift 1882, Nos. 28-30) performed excision of the tarsal cartilage and

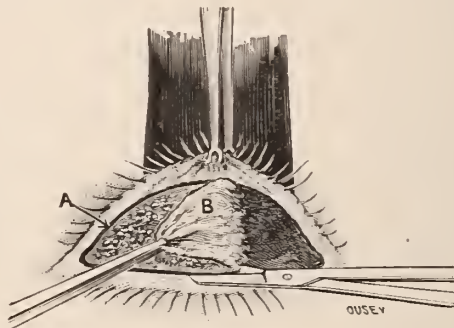


Figure 4b

the conjunctiva of the fornix, that any further progress was made in this direction. His technic was considerably improved by Kuhnt (Ueber die Therapie, etc., S 112-53), and it is from the experience of these masters that we draw, in performing the excision operation which has given such wonderful results. Every surgeon of any experience in Europe has been convinced of its value. In America it has received the attention of Dr. Casey Wood, Dr. H. W. Wooten, Dr. George F. Suker, Dr. Stuckey, and others, and then, strange to relate, has dropped to the background. With J. Boldt, the best informed of all the writers on the subject, we agree when he states, "We cannot here enter into the objections, for the most part theoretical, of the numerous opponents of excision. They have long been refuted by those who have tried the method."

The great claim for this operation is the short period necessary to effect relief. Of almost equal importance is the claim for permanent neutraliza-

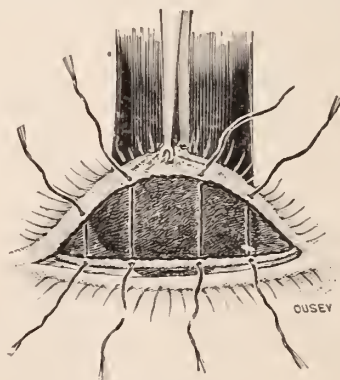


Figure 4c

tion of the ravages of the disease. Results cannot be expressed in percentages, as the cases are not all the same type of disease, and as the

patients are presented in despair for relief of any kind, we have no hesitancy in performing it.

The resection of the tarsal cartilage must always be performed with some slight modifications from those instructions given in the text book descriptions. Personally, I am given to performing a modified combination to which I have applied the name Kuhnt-Heisrath operation, the principle of the operation being unaltered, but the technic is slightly changed.

General anesthesia is usually employed. I prefer ether, but ether of a good quality is naturally desired. The bargain ether now on the market in some communities is to be condemned. After anesthesia is obtained, the eye is given the customary irrigation, then the upper lid is everted and held by squirrel toothed forceps on a horn spatula. In an emergency, a fenestrated lid clamp may be used in its place. An incision is then made on the exposed inner lid surface by means of a sharp scalpel parallel to the lid margin, and about two to two and one-half millimeters from it for the length of the lid curving slightly inward in the middle of its course. This is really a straight line. The scalpel must be sharp. One with a broad belly gives the best results. The incision is made directly perpendicular to the tarsus through which it passes, leaving a cut surface at right angles to the portion of the tarsus to be retained. If it does not do this it permits a retention of that part of the tarsus which has the curve in it, and the success of the operation will be correspondingly jeopardized. The extremities of this incision are united by a curved incision which begins at one extremity, follows the lateral margin of the same side of the lid, then the upper or distal border of the tarsus, then the lateral margin of the other side until the distal extremity of the original incision is reached, which it then joins. This second incision makes a rather deep curve and involves the conjunctiva and attachments at the upper border of the tarsus. The tissues included within the area outlined are tarsus and usually diseased conjunctiva. In my recent work among the Indians I have supplemented the operation with an external canthotomy, leaving the lid edges remain free and not sutured except in one instance. The results in all of my cases have been extremely gratifying and the possible ill effects are negligible. Even the simple excision of a strip of tarsus two millimeters wide without subsequent use of sutures or resection of the fornix is also a very satisfactory operation, a modified Burrows' operation.

Our recent experience among the Blackfeet Indians on the reservation adjacent to Glacier National Park emphasizes a need for greater interest on the part of all of us towards the condition of these governmental wards. When we contemplate the fact that as late as August 1924,

there were 450 cases of the disease among 3,500 Blackfeet Indians alone, we cannot feel that the best has been done for these individuals. A recent survey of the other reservations and schools shows an incidence ranging from 13 to 40%, with the higher percentages among the Indians in the field that is not connected with the groups. The surgeons in the Indian Service confess dissatisfaction with the older treatments in vogue, and add in their observations, the trait of the Indian, that he is reluctant to continue any treatment that does not give immediate relief. The general conditions under which they live militates against the intensive use of local applications, such as nitrate of silver or its alkaloids—copper sulphate and the like.

Our personal experience with them has been most gratifying with the radical form of treatment, and aided by the testimony of previous Indian patients, we had no difficulty in persuading 120 to submit to radical operation during a

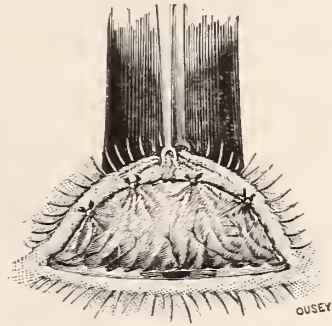


Figure 4d

recent visit to the Blackfeet Reservation in Montana. The immediate results were so encouraging as to enlist the interest of the departmental heads in Washington, Charles H. Burke, Commissioner of Indian Affairs, and Edward B. Meritt, Assistant Commissioner of Indian Affairs, who have arranged for instruction of the surgeons, in the Indian work, in the technic of the operations. This had already been inaugurated before my stay had been completed, by Dr. Yates and Dr. Fahey, Dr. James S. Perkins, of Fort Defiance, Arizona, Navajo Reservation, Dr. Barton, Fort Hill, Idaho, Dr. W. S. Stevens, of Washington, D. C. I feel that in demonstrating this operation to the above mentioned surgeons, each of whom will return to his reservation and there carry out the technic of this operation, the Blackfeet and the other tribes will be greatly helped, and much will be done to eradicate the disease.

Our recommendations in the treatment of this disease would be something along these lines. In the early stages when the disease resembles acute, subacute or chronic conjunctivitis, to treat it as such, emphasizing the contagious character, and institute sanitary and hygienic measures to

prevent the occurrence of new cases. When the granulation stage has been reached and there are no corneal complications, grattage should be performed. When the granulation stage is pronounced and the cornea shows signs of involvement, resection of the cartilage is indicated. When the cicatricial stage has arrived, the distressing symptoms that attend the continual rubbing of the contracting lid on the inflamed cornea may be relieved by excision of the cartilage, and the Zeigler cautery applied along the lid margin, preventing entropion. Often the pannus will subside completely.

We cannot always select our cases so that our results will appear spectacular to the reading public, but the gratification that attends the relief given in all cases, amply compensates for the percentage loss in the statistical record.

UROLOGIC DIAGNOSIS FOR THE GENERAL PRACTITIONER*

BRANSFORD LEWIS, M.D.
ST. LOUIS

Diagnosis in urology has been subject to the same processes of evolution and development that have pertained to other departments of medicine and surgery during the past decade. What would serve as a basis for diagnosis ten years ago would hardly be acceptable today. The old methods have been relegated to the junk heap as inadequate, the same as the custom, when I was a boy, of looking at the tongue, feeling the pulse and at the same time reaching for the calomel bottle in the medicine kit. This sequence obviously was puerile and without value. An incident illustrating the remarkable changes that have come about occurs to me in the memory of a pleasant experience I had with the Indianapolis profession some twenty-five years ago, or thereabouts, when through the instrumentality of my dear friend, Dr. Wishard, I was invited to demonstrate double ureteral catheterization, which was then just coming into vogue; and every time it was successfully accomplished it was pronounced a real achievement. Luckily our demonstration proved a success; and I believe there were about two hundred members of the profession who witnessed it. At least they looked that many to me, under the stress of the exciting question as to whether I would succeed in the demonstration or not. Now ureteral catheterization is carried out daily in every city and town of any size in the country, and is a mere routine procedure.

The question before this assembly today is: What processes of investigation are at the disposal of the general practitioner that will serve for attaining a worth-while diagnosis in a urological patient.

This, of course, presupposes an agreement amongst all of us as to the *value* of diagnosis: That it is the most valuable and essential service that the practitioner of any kind can render his patient; and when rendered early, is trebly valuable. I recall having seen patients who have suffered miserably from curable urinary ailments for ten, fifteen or even twenty years, without a serious effort at making a real diagnosis ever being made in all that time, only so-called "treatments" having been given. Twenty years of suffering and no real medical service rendered, and all because of lack of diagnosis.

One reason for this I believe lies in the impression existing in the minds of some that a serviceable diagnosis in urinary troubles can be based only on elaborate and technically difficult methods of examination by highly trained investigators. This is a mistake, based on lack of familiarity with the real situation. The general practitioner, if he will, can go about the task methodically and develop a diagnosis that may be of untold value to his patient, either saving him directly from prolonged suffering, or guiding him early into lines of procedure that accomplish the same end.

The simplest possible examination intelligently carried out will often furnish a solution that may have been hanging in the balance for an indefinite length of time. Last summer a patient fifty-nine years of age consulted us with reference to an increasing difficulty in urination that he had been observing with apprehension for the past eleven years. He had described it to a number of physicians whom he had consulted, all of whom had given him favorite prescriptions or sage advice but to no avail. His difficulty had finally become so severe that he could urinate only in a needle-like stream, or in drops; and the act was accompanied with frequency, urgency, burning and pain. Even a most casual examination showed that the urethral meatus was almost closed by chronic indurative inflammation that had been added to a congenital narrowing of that orifice. It was difficult to conceive how a condition so obvious could have escaped observation except for the fact that there had been *no observation*—no direct examination or inspection of the urethra at any time; only medicines administered.

HISTORY OR EXAMINATION, WHICH?

This suggests a very pointed question: Which is the more useful for developing a diagnosis in urology, the history of a case or the physical examination? Many practitioners consider an elaborate and exact history and a refined analysis of the symptoms as affording the most valuable evidence on which to base a diagnosis.

While this of course is serviceable and even desirable in complicated cases, an appropriate and comprehensive physical examination, in the estimation of the writer, can disclose more in a few minutes than a history can in a week.

*Presented before the Section on Surgery of the Indiana State Medical Association at the Indianapolis Session, September, 1924.

A history is merely a recital of the patient's observations and impressions which may or may not be accurate; while a good physical examination goes to the root of the trouble like a shot to the bull's eye, direct, sure and satisfying, resolving and clarifying a situation that may have been growing more confused and mystifying with the passage of time. By means of the physical examination a so-called "chronic cystitis" is revealed in its true light as a condition secondary to a stone in the bladder, as plain as day to the cystoscopic view; a hematuria is shown to be the mere outward expression of a tumor in the bladder, the discovery and demonstration of which constitutes an imperative demand for prompt and positive action, which may very possibly prevent years of misery and final death.

As indicating the unreliability of a patient's impressions the following is submitted: An intelligent gentleman was referred by his physician complaining of two things in particular: Of a gradually growing tumor in the lower abdomen, and of an inability to retain the urine. There was no complaint of difficulty in urination, but quite the opposite condition was said to exist: an inability to hold the urine. He readily demonstrated his ability to urinate by passing eight ounces in a glass before me. A large globular tumor was visible and palpable in the lower abdomen, even after this alleged free urination. Nevertheless, unconvinced, I inserted a soft rubber catheter and drew out forty-two ounces of residual urine!

The condition really present was one of hypertrophied prostate with marked obstruction and simulated incontinence. The urine that passed involuntarily was the overflow of a chronically distended bladder; and the large tumor in the lower abdomen was the visible evidence of that bladder which, however, disappeared on withdrawing the urine by catheter. This was in the pre-infective stage, free from irritative symptoms, and the urine was perfectly clear. This history, if relied on, would have been entirely misleading.

NECESSITY FOR EXAMINATION

It may be stated as a general proposition that *any persistent urinary symptom or sign should be methodically investigated and definitely diagnosed both as to its source and nature.* A hematuria is no more a disease than a fever; yet it is not unusual to hear of instances in which this sign, so wonderfully valuable as a danger signal, is ruthlessly suppressed for the time being, just in the early period, perhaps, when its value is the greatest, by the prescribing of internal astringents or hemostatics that if effective postpone the examination and diagnosis which constitute the *most crying needs* under the circumstances. Some day, when this situation is recognized in its true light, it will be considered virtually a professional crime to suppress a hematuria before permitting an

opportunity for proper examination and the clearing up diagnosis.

Inordinate frequency of urination is another of these expressions of disease for which so-called treatments are permitted and fatuously given for months or longer before providing for a definite examination. The physician who accomplishes the recognition of a tuberculous kidney *in the early period of its development*, is the one who earns his fee and the eternal gratitude of his patient. He provides for the removal from the body of a tuberculous focus that is otherwise destined to shorten life, besides producing a more or less prolonged period of suffering and invalidism. There are few diseases that cause more pain and suffering than urinary tuberculosis.

Compare the futile method of "doctoring" such patients with diuretics and bladder washes with that in which a microscopic examination demonstrates numerous tubercle bacilli in the urine of such a sufferer; followed up by a prompt cystoscopy with double ureteral catheterization and the securing of clear, healthy urine from one kidney, and of tuberculous, purulent urine from the other; and then the prompt and clean nephrectomy that restores the patient to health and a normal life expectancy!

In the one case, months or years of expense and suffering to no purpose, with death as a relief. In the other, definite recognition of the true situation, appropriate action thereon and restoration to comfort in living, all accomplished through a definite examination and a serviceable diagnosis.

There are some traits and habits of urinary tuberculosis that if understood may be utilized to the great advantage of the patient, possibly conserving for him health and long life. "Urinary tuberculosis" practically means, in the earlier periods, tuberculosis of one of the two kidneys. The old idea of "ascending infection" for tuberculosis has been exploded. So that in nearly all cases, the finding of tubercle bacilli in the urine should impel the physician to a definite and prompt study of the question as to which kidney is involved; and when this is determined to supply the life-saving nephrectomy. But one must be careful not to fall into another of the pitfalls of urinary diagnosis in this relationship. Tubercle bacilli in the urine do not necessarily mean urinary tuberculosis or the tuberculous disease of any urinary organ. It may be a filtration of tubercle bacilli from the blood through the kidneys and no urinary tuberculosis whatever. Therefore, before a nephrectomy is done one must secure the definite evidences of disease in the affected kidney, in the form of pus, possibly secondary bacterial infection, physical and functional degeneration, referable to that kidney. A comparison of functional activity of the two kidneys, as determined by ureteral catheterization and thalein test, should be of service in this regard.

Another point of great importance: personally,

I do not rely on the ability of bacteriologists to differentiate between tubercle and smegma bacilli by microscopic observation alone. I prefer to assist the bacteriologist in his endeavor to avoid error by obtaining the urine in such a way that smegma bacilli are eliminated from the specimen, namely by careful aseptic and direct urethral catheterization in both males and females. I know a lawyer who for five years lived and labored under the erroneous diagnosis of "urinary tuberculosis" because his consultants, a surgeon and a bacteriologist, both of them eminent in the profession, mistook smegma bacilli for tubercle bacilli in the urine that had been voluntarily passed by the patient. After the patient had served his five years of treatment under this diagnosis I was consulted and found a large elbow-shaped stone in the kidney, the removal of which was followed by his definite recovery.

If we take the urine direct from the bladder, or better still, from each ureter by cystoscopy and ureteral catheterization, we avoid the access of acid-fast smegma bacilli that so closely resemble tubercle bacilli.

It is hard enough to avoid error when all precautions are taken. But at least we may feel the consolation that the error has been made in the conscientious performance of duty, not in the neglect of it, such as occurs when no examination at all is made.

URINARY OBSTRUCTION

Obstruction to the normal progress of urine down the urinary tract may occur at any point in the whole tract, from external urethral meatus to the kidney-pelvis. The causes are multifarious. But whatever and wherever they may be, it is our duty to locate them and discover their nature and origin. They come from stricture formation, stones, tumors or growths, cysts, foreign bodies, and in the ureters, from kinks in the tubes or pressure of adhesions or growths outside of them.

Urethral obstructions are demonstrated by bulb sounds (not conical steel sounds) and are comparatively easy to detect. Vesical obstructive factors are observed through the cystoscope and consist mainly of stones, tumors or foreign bodies. But it is the *obstructions at the vesical neck* that are often most puzzling or difficult of diagnosis. When obstruction at the neck is mentioned most physicians at once think of *hypertrophy of the prostate* as being the one and only cause; and if they give any advice to the patient it is usually to the effect that he must have his prostate removed. Or they may be on the other side of the fence altogether and advise the patient to stay away from specialists who undoubtedly will want to jump in and take out his prostate, a very dangerous and reprehensible operation.

I believe that all conservative and conscientious urologists will bear me out in saying that these critical conclusions are unwarranted and unjustified.

Aside from the fact that there is *never* any justification or need for an immediate or "emergency" prostatectomy, it is a fact that many different and varying conditions produce obstruction at the vesical neck other than prostatic hypertrophy; and these all require their own individual modes of treatment, many of them not involving operation at all. Hence the necessity of having each case stand on its own merits, as determined by a complete diagnosis.

Simply recalling without discussing them, it may be mentioned that obstructions at the neck are produced by prostatic hypertrophy, contraction at the neck, cyst, cancer, stone, tumor, or congenital valve formation, and that most of these conditions may occur at any period of life, from infancy up. I have seen marked obstructive contractions at the neck, severe enough to require operation, in boys of three years; and prostatic hypertrophies requiring removal that produced emphatic symptoms as early as thirty-two years of age.

As to the diagnosis of the most common of these obstructive conditions, prostatic hypertrophy, it may be said that the determination merely of the presence of hypertrophied prostate is no diagnosis at all. Many elderly men have hypertrophied prostates but never any obstruction from them, and never any bad effects. It is the obstruction that does the damage. In respect to the diagnosis of hypertrophic obstruction there are five diagnostic objects that should be sought, and all are essential to make our diagnosis complete for determining our plan of action for relief. They are the following:

1. Is there hypertrophy present?
2. Is there obstruction?
3. If so, how much obstruction?
4. The nature and form of the obstructing factor.
5. The physical and functioning condition of the allied organs, the kidneys, heart, digestive tract and lungs.

If we obtain correct answers for the first four of these objectives and neglect the fifth, we may operate skilfully and scientifically but have a dead patient as a result. Pre-operative diagnosis of functional activities is now proclaimed by urologists to be of vital import in all cases. It has assisted as much as anything else in reducing the mortality of operative work in this line, from its former fifty per cent to its present five or six per cent. It has led directly to the establishment of preparatory measures for placing the patient in good condition before operating. It has led to the declaration for *safety first or no operation*.

But, how are we to attain the answers to the five cardinal objectives above mentioned?

With one exception (the fourth) they are all easy of attainment and within the reach and ability of every practitioner.

1. Is there hypertrophy? Insert a rubber-gloved fore-finger into the rectum and palpate the prostate. One can easily say whether it is of approximately normal size or much enlarged, smooth or nodular, etc. While in certain instances this may not give all the information desired (intravesical hypertrophy not being palpable to the finger in the rectum) it is one of the regular steps of examination and may be of much service.

2. Is there obstruction? Have the patient urinate *all he can*, into two clean glasses; then insert a soft rubber catheter into the bladder. If it is empty there is no obstruction. If it contains fifteen to twenty or more ounces of urine there is pronounced obstruction, the measure of which is given in the number of ounces of residual urine thus obtained, and the answer to the third query, the amount of obstruction, is also furnished thereby.

4. The nature and form of the obstructing factor: Rectal palpation may give an impression as to whether the enlargement of a given prostate is simply hypertrophic or cancerous, but it cannot make a determination of the *conformation* of the outgrowth that is producing the obstruction. This is directed upward toward the cavity of the bladder and cannot be reached by the palpating finger. But this deficiency is made up by the cystoscope which reaches into the bladder and makes visible the whole neck of the organ, with its deviations or outgrowths of whatever shape or form; and the differentiation between hypertrophy and carcinoma, stone or tumor is at once promoted or decided. The mode of surgical attack may depend on the result of this part of the examination; but the time of the attack must depend on the solving of the fifth objective, the physical and functioning condition of the allied organs.

A chemical and microscopic examination is made of the urines already passed in the two glasses. This naturally gives a line on the physical condition of the kidneys, and forms therefore an index of their excretion. Their incapacity for work or functional incompetence is indicated by the relative amount of poisonous products (blood urea, non-protein nitrogen) detected in the blood by laboratory investigation. These form the index of retention, and are equally as important as the others for determining renal functional activity. The physical condition and functional activity of the other organs (cardiac system, lungs and intestinal tract) involved are investigated in the usual ways applicable to them and need not be described here. But before any operating is done they must be put in as good a condition of functional activity as is possible, which is the reason for diagnosis as related to them.

INFECTIONS IN THE URINARY TRACT

A diagnosis simply of gonorrheal or non-gonorrheal infection is practically no diagnosis at all. The same requisites of exactitude and completeness are demanded here as they are in re-

spect to obstruction or hematuria. In addition to determining the kind or nature of the infection, one must determine its location, as to whether it be in the anterior urethra only, or the posterior as well; in the prostatic follicles, the seminal vesicles, or in the upper urinary tract, ureters, kidney pelves, or kidneys, one or both.

These determinations are all within the ability of the methodic and conscientious investigator. The microscope identifies the infectious organism involved but it must be identified by very exact and dependable methods, not mistaking pseudogonococci for real gonococci, nor the reverse. The double-glass urine test if properly carried out tells whether the posterior urethra is involved. Palpation and massage of prostate and vesicles give information as to the condition of those organs, the product of the massage being caught in a butter platter held under the pendant penis and put through the microscopic investigation.

For determining the location of involvement of infections in the urinary tract there are very definite and satisfactory methods. An anterior urethral infection gives a discharge that appears at the external meatus; and when the patient urinates into two clean glasses, the first glass is cloudy (with pus and bacteria) while the second is clear. In posterior urethritis, both glasses of urine are cloudy. But this does not determine the question as to whether the bladder or upper urinary tract is the source of the cloudy urine of two glasses.

Where there is good reason to suspect the upper tract as being the source, or where there is unreasonable persistence in the pyuria or bacteriuria after good treatment of the lower tract, cystoscopy and double ureteral catheterization are positively indicated, often throwing a flood of light on the situation not supplied by any other means, and affording a final solution of the case.

THE UPPER URINARY TRACT

Some of the most difficult problems in urological diagnosis are met with in affections of the upper tract, in the ureters, the kidney-pelves and the kidneys. They relate to colics and recurrent pains that may emanate either from these or other of the abdominal organs, especially the gall-bladder and appendix. Many patients have been operated on for appendicitis, only to find later that the same symptoms persisted as before the operation and therefore could not have been from the appendix; after which further investigation has traced the trouble to the right ureter or kidney.

X-ray shadows of concretions have been observed in which it was very difficult to determine whether they were within the appendix or the right ureter, unless checked up by various methods. And then there is the old problem of differentiating phleboliths and calcareous glands from ureteral stones. We find that some physicians are still relying simply on x-ray negatives

for diagnosing ureter stones—entirely without warrant now, in view of the many pronouncements against it of the whole urological contingent of the profession.

The history of a case must be studied, analyzed and followed up by cystoscopy, ureteral catheterization and x-ray. As pointed out by Schmidt in 1910, if the shadow is one of a ureteral stone it should be in line of the ureter, which line is exactly indicated by the radiograph catheter that lies in the ureter; and if the shadow is definitely removed from the ureteral line, as indicated by the shadow of the catheter, it stands revealed as something other than a ureteral stone, probably a phlebolith. Just because a shadow is in the line of the ureter, does not prove it to be a ureteral stone. It might be a phlebolith or calcareous gland that just happens to lie in the ureteral line, simulating the appearance of a ureteral stone. Such things have happened more than once, and such patients have been opened for stone with the embarrassing result of finding none.

To avoid this pitfall the writer has devised and carried out the following plan, which has proved successful in a number of cases:

When a shadow resembling that of stone is found in the line of the radiograph catheter, the catheter is withdrawn and a metal ureteral forceps or dilator is introduced into the same ureter. On taking the picture now the shadow will be found definitely removed from the ureteral line, if it is phlebolith, but still in the ureteral line, if it is a ureteral stone. The reason is that the more rigid metal instrument straightens out the course of the ureter, removing it from the line of the phlebolith shadow, whereas the catheter is flexible and follows the course of the ureter, wherever it leads, which happens to be in the line of the spurious (phlebolith) shadow. Hence the differentiation is made with ease and certainty.

Small stones do not always show in the x-ray picture. This is particularly true of pure uric acid concretions. So they must be made to show by staining them so they will resist the rays sufficiently to cast a shadow. This is done by injecting 25 per cent argyrol solution through the catheter thus staining the stone and making it visible to the ray.

URETERAL STRICTURES

Strictures of the ureter are as definite a pathological entity as are strictures of the urethra; and they are just as deserving of recognition and some kind of surgical attention. When located at the ureteral orifice they may be easily detected and demonstrated. The ureteral sound or catheter either fails to enter the channel or does so with more or less difficulty. The passage of the catheter may be obstructed from a similar cause at any point higher up. In some instances the wax tipped bougies of Kelly or the bulbous ureteral bougie may be of service in getting the

"jump" as it passes through the strictured channel. But a ureterogram may show the presence of stricture or kink or other cause for narrowing of the channel more strikingly than any other method.

This is sometimes taken with the catheter lying in the lower part of the ureter, the injected medium passing up along the canal and showing by x-ray the exact contour, caliber, and irregularities of the ureter; or if it be found impossible to pass the catheter into the ureter, the catheter "hanging" at the orifice and invariably failing to go up, then the injection may still be made if the ureteral orifice is open or dilated somewhat, simply by filling the bladder with an appropriate medium (15 per cent solution of sodium iodid), elevating the pelvis and allowing the fluid to run back up the dilated ureter. The subsequent x-ray negative will show in full detail, any strictures, dilatings or other deformities that may be present.

STONE IN THE KIDNEY PELVIS

The methods of detecting stone in the kidney pelvis are practically the same as those for the ureter, and include x-ray negatives with and without the staining method. Ureterograms and pyelograms are not only useful but are essential in many obscure cases. But they must be carefully and properly applied.

Radiography that is conducted by experts and checked by the various methods of control (x-ray catheters, semi-rigid bougies,) is capable of rendering wonderful service for diagnosis in urology. On the other hand, if carried out in a haphazard way and without the necessary controls, it may be entirely misleading and worse than useless. It is efficient as a servant but dangerous as a toy.

REFLEX URETERAL AND RENAL COLICS

During the past ten years the writer has observed a number of instances in which severe ureteral or renal colic, closely simulating that of stone, has occurred apparently as a direct result of obstruction at the vesical neck. This phenomenon has occurred in both males and females. The advantage in recognizing this relationship consists in the prompt relief and happy outcome of treatment supplied on that basis. The first case in which this was observed was that of a physician who came in 1913, from Dallas, Texas. With him the colics were typical in recurrence and severity of stone in the right ureter; and the hypothesis of stone was fortified by radiograms showing shadows apparently in the right ureter low down. But x-rays taken with ureteral catheters in place showed the shadows to be outside the ureter and therefore no stone; while dilatings and irrigations relieved the marked tendency to contraction and obstruction at the neck and relieved all reflex symptoms.

Another (male) patient of Granite City, in October, 1920, was marching and playing an instrument in a band when he suddenly had to fall out of line and receive emergency treatment (hypodermics of morphine, hot applications, etc.), for very severe colic that began in his right kidney and ran down along the course of the ureter into the right testis. From the typical symptoms presenting a diagnosis of ureteral stone was made by the consultants in attendance, after which he was referred to my care. In the course of our investigation we found there had been no complaint of impediment to urination, which the patient claimed had been free and satisfactory; nevertheless we found seven ounces of residual urine constantly present until it was reduced by the regular use of the Kollman dilator; and in the meantime ureteral stone was definitely excluded by ureteral catheterization and radiography. Further use of the dilators removed the evident obstruction at the neck (contracture) and also prevented the recurrence of ureteral or renal colic. There has been no recurrence now in four years.

Just such typical instances of reflex ureteral colic have been observed in women, followed by prompt and lasting relief on the application of dilators and irrigations of the contracted urethras. The writer has been loath to believe in the reality of this reflex symptom and has only become convinced by its repetition and re-iteration in numerous instances; and he therefore feels justified in now calling attention to it.

CONCLUSIONS

In conclusion, a few aphorisms for the general practitioner in urological diagnosis might be in order:

1. All hematurias should be looked on as danger signals and are deserving of definite investigation with regard both to cause and location; and the investigation should be made while the bleeding is going on, not waiting till it ceases, and vanishes as a source of information. This is especially true now that so much more is being done for cancer cases if recognized early.

2. Cystitis is a symptom rather than a disease, the cause of which must be looked for both inside and outside of the bladder. In most cases of so-called cystitis with excessive urination and yet clear urine in women, the condition is urethrotrigonitis, demanding urethral rather than vesical treatments; and usually amenable to regular dilators, irrigations and endoscopic treatments.

3. The various urinary affections demanding our attention as practitioners of medicine afflict the young, as well as the middle aged and old; and infants and children should be given the same considerate and analytical attention for diagnosis that is advised for their elders. "Growing pains" and such illusory expressions have no place in the

lexicon of the urologist or the practitioner who would conscientiously care for such cases.

DISCUSSION

DR. H. G. HAMER (Indianapolis, Ind.): I am entirely in accord with Dr. Lewis' position when he states that any persistent urinary symptom or sign should be methodically investigated and diagnosed.

I wish to dwell particularly upon the symptom of hematuria. This symptom may be due to a great variety of causes, both medical and surgical. Many of these conditions are capable of being diagnosed without difficulty by ordinary methods, while others are more obscure and will tax the skill of the most expert. Renal hematuria, which occurs with tumor of the kidney, is the most important and profuse spontaneous hemorrhage from that organ. Hematuria is also a common symptom of kidney stone and kidney tuberculosis, and when hematuria exists one of the conditions, stone, tuberculosis or tumor is usually suspected. But there are many other diseases in which hematuria may occur, namely: hemophilia, drug poisoning, parasitic disease, acute febrile attack, chronic nephritis and papillitis or the so-called idiopathic hematuria.

Of the more common causes of hematuria ordinary methods of examination should render a diagnosis. Laboratory measures plus cystoscopy, x-ray, ureteral catheterization, pyelography and physical examination, should elicit the cause in the majority of surgical conditions.

Of the more obscure conditions a diagnosis may be attained only after one has extended all means of diagnostic procedure, and a few will remain unexplained.

Frequently there is but one symptom, hematuria. It may be constant or intermittent. The bleeding may last a few hours or continue for days. Having once occurred it may never appear again, or it may return time after time and be so profuse as to threaten life. In the presence of a condition so variable in its manifestations, so like in its only symptoms to cancer of the kidney, so dangerous in its continuance, a diagnosis is of the utmost importance and often difficult to obtain. Full realization of the fact that hematuria, which is so often the first symptom of malignant tumor of the kidney, may occur several years before any other symptom, cannot fail to impress upon the physician the necessity for the utmost caution in determining the cause. It is not sufficient that the hematuria cease. This it is prone to do. The patient should be warned that hematuria may be the first symptom of serious renal disease and a careful examination insisted upon. The physician must recognize that the more spontaneous the bleeding and the more entirely free the patient is from other symptoms the greater the possibility of malignant disease. Renal

tumor may usually be diagnosed by palpation of a loin tumor and ureteral catheterization revealing a deficient function. If these measures fail, pyelography reveals deformity of the kidney by tumor. If the examination fails to show chronic nephritis, stone, tuberculosis or tumor, a diagnosis of papillitis may be made by exclusion.

I quite agree that the general practitioner can, if he will, through regular methods, diagnose many urological conditions, yet the fact remains that diagnosis in urology can often be attained only through an elaborate and painstaking examination that is highly technical.

DR. F. S. CROCKETT (Lafayette): Urology is advancing toward a certain degree of exactness in diagnosis which is a point of great pride to the urologist, but I believe a great number of men doing general practice are not fully aware of what can be done in the way of help in both diagnosis and treatment of what may seem to be baffling urologic problems in many of these patients. I do not believe that Doctor Lewis in emphasizing the things that can be done in urologic examination would have us otherwise than assume that careful general physical examination has preceded, because, as you know, more than one pathology can exist within one patient. The pathology giving the most trouble and presenting the most distressing symptoms is often looked after to the exclusion of other very important points. I need to mention only the coexistence of focal infections in tonsils, teeth and gall bladder, as bearing out my point that the patient must be given a very careful general examination, and when you know this you can give him the best you have in the way of urologic diagnosis and treatment.

Doctor Lewis has mentioned the positive things the urologist can do. It might be well to emphasize some of the errors that some of us may be making. Gonorrhoea is such a prevalent disease that when a patient comes in with an admitted history of infection, even remote, and with a cloudy urine, he is put on general treatment for that particular condition and kept on it for a long period of time. Two cases come to my mind. A number of years ago I recall a patient who had received treatment for an admitted gonorrhoea of three or four years standing. His treatment consisted of urethral dilatation, irrigation, prostatic massage, etc., but the condition continued. By the use of the very methods which Doctor Lewis has given today it was found that the cloudy urine was due to pyuria originating in the left kidney which contained quite a large stone.

I want to emphasize again what was brought out by Doctor Hamer, that blood is never a normal thing in the urine. It is always evidence of pathology, and if these patients can be seen while the haematuria is present, much more may be done to help them.

Another point I wish to mention is the attitude of the profession towards prostatic tumors. We have been taught to use terms which would make us think they are an hypertrophy or an enlargement due to advancing years. I think my urologic friends will agree that these are tumors, 25 per cent. of which are cancerous; that they are all potentially malignant, many of the adenomatous type containing cancer nests within them. I do not quite understand why a patient with even an adenomatous tumor of the prostate should be encouraged to wait until forced by obstructive symptoms, when the same sort of advice would not be given with a tumor anywhere else in the body.

DR. P. E. McCOWN (Indianapolis): I want to emphasize the fact of pyelitis in children—that it is often overlooked, and the youngsters suffer greatly. Within the last few years there has been put on the market a small cystoscope which enables us to catheterize even the smallest ureters—children two or three days old.

Second, there are a great many men who are treating gonorrhoea who are not paying any attention to the prostate. They are going ahead and clearing up the ureters, without regarding the prostate—even men who I am sure know that the prostate is the organ which causes reinfection, and yet they turn a case loose and the patient goes on suffering.

The first series show that a cysto-uretero pyelogram can be made by any general practitioner, and along with the methods of diagnosis suggested by Doctor Lewis. The first slide shows a fairly rounded bladder with a small protuberance near the vertex, which proved to be an ulcer of a bladder carcinoma. You will note the tremendous dilated ureters with several kinks. In this case ureter orifices were wide open and filled with the solution of sodium iodide merely by introducing a catheter into the bladder and filling this viscus.

The next slide shows a reduced bladder capacity subsequent to the resection of the posterior wall and removal of a malignant mass 2½ inches long by 2 inches wide.

The next two slides were selected because they show a rare condition, that of congenital ectopia of the kidneys. You will note ureteral catheters curled in the kidney pelvis in front of the mid-section of the sacrum. The following slide shows both right and left kidney pyelograms in this region.

Next we will show a series of slides which would seem to prove a distinct relationship of foci of infection to kidney stones. First is shown a ureteral stone the size of a cherry, which is above the bladder on the left side; also a stone in the lower calix of the right kidney. I attempted ureteral dilatation for the removal of this stone, but because of hemorrhage following the cystoscopic manipulation it was found necessary to do

a ureterotomy. Subsequent to this operation an investigation showed a number of infected teeth, which the patient was advised to have removed after leaving the hospital. After this he was to return for removal of the stone from the lower calix of the right kidney. Upon his return several months later, x-ray disclosed that he had apparently a stone in the pelvis of his right kidney, and a stone in the lower calix of this side. Also in the lower calix of the left kidney we could see what appeared to be a mass of small stones. The left kidney had on our previous examination been free from stones. Upon questioning we found that he had several infected teeth removed, but one suspicious tooth which supported a bridge still remained. Inasmuch as he was still a stone former, we had this tooth removed, also a pair of suspicious tonsils, which proved to have pus in them. Following this procedure he began to pass small stones from both kidneys, and six weeks later x-ray disclosed that the shadow in the left lower calix had been reduced until there appeared to be one or two small stone granules left. In the right kidney an astonishing thing had occurred. In the pelvic area there still remained a shadow about the size of a small pecan. In the lower calix area there were one or two small granules, all that remained of what had appeared to be a solid stone filling the calix. At first it seemed that we had produced a dissolution of what appeared to be a solid stone, but subsequently we concluded that the stone in the pelvic area had originally occupied the lower calix, and that a severe colic which had brought the patient in for re-examination had evacuated this stone from the lower calix. Inasmuch as he still had his foci of infection, this calix refilled with the mucilaginous substance which seems to bind stones, along with crystals containing calcium and other urinary salts. Upon removal of the foci of infection, along with some kidney lavage, there was a disintegration of the binding substance and liberation of the small stones which apparently formed this mass.

We have long known foci of infection in other parts of the body to be the cause of kidney infection. This case, with a few others which are not so startling, make me believe that in some instances foci of infection can be the cause of kidney and ureteral stones.

ACUTE POLIOMYELITIS TREATED WITH ROSENOW'S SERUM

C. C. DuBois, M.D.
WARSAW, IND.

In a recent number of the *Journal of the A. M. A.* Clark and Dow¹ reviewed the now well-known symptoms of acute anterior poliomyelitis and reported six cases of the disease treated with Rosenow's immunized horse serum before any

paralysis set in. In all of these cases paralysis was happily averted. Rosenow², himself three years ago reported two hundred and fifty-nine cases so treated with his serum, sixty of these received the serum before paralysis and fifty-nine of these escaped paralysis.

None of the former group and only fifteen of the two hundred and fifty-nine reported by Rosenow occurred outside of epidemics and of this number all were treated late and all developed paralysis.

In order to call further attention to the use of Rosenow's antipoliomyelitis serum, I wish to report briefly two sporadic cases treated before paralysis with complete recovery without paralysis in either.

E. S., ten-year-old girl, oldest of four children. Family and personal history negative. Tonsils removed two years ago. Finely developed specimen of childhood. She had showed signs of languor for a few days. On August 13, 1924, she complained of leg ache and at five p. m. had a marked chill. She was first seen the morning of August 14. Temperature 101.4. White blood cells 9,600. Urine negative. She was irritable, restless, had vomited several times and had not slept at all during the night. She complained bitterly of pains in head, neck and back. There was no soreness of muscle or nerve trunks. She could not stand on account of dizziness. The neck and back were markedly rigid. Kernig and Brudzinski positive, pupils active, patellar reflexes could not be elicited. There was no cold and no redness of the throat detectable. The patient showed at times convulsive movements of the body and arms.

Lumbar puncture showed slightly increased pressure, positive globulin and a cell count of 400, mostly polymorphonuclear. Stains and cultures on blood serum, agar and bouillon, failed to show organisms. It was impossible to obtain the serum for treatment for thirty hours after the patient was examined or forty-eight hours after the onset of symptoms. In this interim all signs became more pronounced, especially neck rigidity and restlessness. Temperature rose to 102.2. She developed abdominal pain, constipation and pain in right thigh. A second and third white blood count showed 10,600. A second lumbar puncture to further eliminate the possibility of a meningitis showed a count of 1,200, nearly all red blood cells, evidently accidental.

Forty-eight hours after the onset, the patient was given 1½ cc. of serum subcutaneously and in two hours 12 cc. intramuscularly; the following day 20 cc. intravenously. The effect to the intravenous injection was almost spectacular. The temperature fell from 102.2 to 97.8 in seventeen hours; pulse from 120-130 to 96; she became quiet and slept all the following night. Neck rigidity was noticeably less. Restlessness and

irritability disappeared at once. There was a rapid improvement in all symptoms, the neck rigidity persisting slightly for ten days.

The second case, H. S., was the next child of the family, girl age eight. Had a slight fever and headache on the sixteenth day after her sister's illness began. Was seen the following day, August 29. The symptoms were similar to those of her sister, but more rapidly advancing. She slept well the night of August 28. Within twenty-four hours her temperature was 102, pulse 140, marked stiffness of the neck; knee jerks could occasionally but not regularly be elicited. Kernig and Brudzinski signs were positive. White blood cells 11,700.

Since her case appeared identical with that of her sister, and came on after definite exposure to polio, no lumbar puncture was made. Twenty-four hours after first symptoms she was given 1½ cc. serum subcutaneously, in two hours 10 cc. intramuscularly and in twelve hours 4 cc. intravenously. No more serum was available. Fortunately, however, all symptoms in this case rapidly cleared. By the end of the third day neck rigidity was difficult to detect. Her recovery was rapid and complete.

I report this experience to emphasize the importance of early diagnosis in poliomyelitis, especially in sporadic cases, and again to call the attention of the profession to the use of anti-poliomyelitis serum.

REFERENCES

1. Clarke, Floyd and Dow, Andrew G.: *Rosenow's Serum in Prevention of Paralysis in Anterior Poliomyelitis.* *J. A. M. A.* 83:421 (Aug. 9, 1924).
2. Rosenow, E. C.: *Treatment of Acute-Poliomyelitis with Immune Horse Serum.* *J. A. M. A.* 77:588-590 (Aug. 20, 1921).

COMPENSATION FOR MEDICAL SERVICES*

JOHN LOVETT MORSE, M.D.
BOSTON

The business side of medical practice always has interested me, not because I was so anxious to get money myself but because I felt that doctors in general were not being compensated properly for their services and were greatly imposed upon. I also have felt that this was largely their own fault because they did not do business on a business basis. It is, of course, very difficult for physicians to separate business and charity in their dealings with their patients. It can, I think, be done far more than it is.

Physicians receive bills the first of every month from everyone to whom they owe money. If they do not pay these bills promptly they receive frequent reminders of the indebtedness and at the end of two or three months a very definite reminder that they owe the money and that they

are expected to pay it. If they still neglect to pay it, measures are taken to compel them to do so. I can see no reason why physicians should not follow similar business methods and send out their bills the first of every month; if their bills are not paid promptly then, send out reminders that the bills should be paid; and, if the bills are not then paid, take measures to force settlement. The people who send bills to doctors, even if they are not the same to whom the doctors send their bills, certainly belong to the same class. I always have followed the business men's method of collecting accounts and rarely have failed to collect all that was due me, provided people were able to pay.

There are many business men who do not intend to pay any bills until they are compelled to pay them, because they wish to keep their money active in their business. They have no hard feelings toward the man who makes them pay their bills on time. They simply consider the man who doesn't make them pay their bills as an easy mark. I have, in a number of instances, been called to see patients whom a lawyer a few days before had forced to pay my bill. Thereafter, they always paid their bills promptly and I think thought more of me. If an occasional patient is lost because he is compelled to pay his bill I can see no disadvantage in it as probably that patient sooner or later will prove to be a very undesirable patron. I can see no benefit to the physician in making charges against people who do not intend to pay. He can far better spend his time in study, or even in playing golf. A doctor's worst enemies, and the ones most apt to speak ill of him or even give him trouble without cause are the persons who owe him money and can pay but will not, and some of the charity patients who long have been accustomed to dependency, are not ashamed to ask for assistance and are very exacting.

I always have felt very strongly, for many years, that the public should be made to understand that it has no right to a physician's services. Individuals have no more right to a physician's services without paying for such services than they have to get coal from the coal dealer without paying for it or groceries from the grocer without paying for them. People do not expect to get their groceries and coal free and they would not expect to get their medical advice free if the doctors by their inefficiency in business methods had not taught them to expect more or less free medical service.

While it is true that the public has no right to expect to get medical services for nothing there is no reason why physicians should not, and many reasons why they should, give some of their services gratuitously and freely to the public. They not only should be but are ready and willing to help out and do good in every way they can. Fortunately, they are able to be helpful in a way that the layman cannot. This is the humanitarian

*EDITOR'S NOTE—At the suggestion of a reader Dr. Morse was asked to furnish a paper on medical economics for publication in THE JOURNAL and in response sent a letter covering some phases of the subject, which we herewith reproduce.

side of the question. The public should be made to understand, nevertheless, that these services are given as an act of charity, and that the public has no right to such services. It seems to me that the best way for physicians to impress this fact upon the public is to make the regular charge to everyone for any service rendered and render bills to everyone. Such a bill later may be reduced or discounted to meet the financial circumstances of the patient or to meet other conditions indicating the justice of reducing the amount charged. He may deduct the whole charge and send a receipted bill. He should, however, send the bill. The patient then understands that what he received from the physician not only has a pecuniary value but was a gift, that is—charity, and not something to which he was entitled. Similarly, the physician may make any partial reduction which seems just to him. I can think of no other method that will bring more clearly and forcibly to the attention of the public the fact that they have no right to the services of a physician without paying for the services, and that, if they do not pay for the services, they are objects of charity. I must admit, however, that I have never had the courage of my convictions, and have never sent out bills on this basis though this delinquency may be attributed to hesitancy to break precedence of long standing.

I also feel very strongly that charges for consultations should be fixed in advance, and that the patient always should be informed, if the charge is less than the usual one, that a reduction has been made because of his inability to pay the full charge, and that the reduction is made as a favor and not as a right. If before the consultation no request is made for a reduction then the patient should be required to pay the full fee. The same rule should be applied in office consultations. There is no reason why a patient should be allowed to come to a physician's office, get his advice and then say, "I have only so much money, doctor, and will give you this," regardless of the regular fee. Such people would not think of buying and using a Packard car and then telling the dealer that they had enough to pay for a Ford car and were sure that the dealer would be satisfied with that. The automobile dealer, fortunately, is better off than the physician. He can get his car back, even if it is damaged; the physician cannot get his services back. People who pursue this course should be made to pay. People who are decent and ask for and are worthy of a reduction in the usual fee before they ask for advice should be given every consideration.

Fees for operations for all whose credit is not known should be decided upon in advance, except in emergencies. People who are unable to pay the minimum fee for which a surgeon can afford to do an operation can then go to some other man, or to a hospital where there are free clinics.

There certainly is a minimum charge below which the busy man cannot go without definite loss. There is, of course, no reason why, if he desires, he should not take this loss and donate his services or a part of them to the patient. If the services are donated the patient should understand that they are being donated and that he is accepting charity. If the price of the operation is settled beforehand, then later there can be no complaint either on the part of the patient or the physician.

It is, of course, possible to over-emphasize the business side of medicine. Physicians, however, have to pay a large amount for their education, usually go through several lean years before they get much practice, and have to pay for food, clothing, housing and everything else in the same way and in the same amounts as their patients. The only source of income which they have is the payment which they receive for their services. If they do not receive proper recompense for their services they can not pay others for the services rendered them, can not lay up anything for their old age and, when they die, can not leave a reasonable competence to their families. It seems to me that it is possible for physicians to get proper recompense for their services and yet do as much charitable work as is right and proper for them to do. The points which I wish to emphasize most strongly are that the business and charitable sides of medicine ought to be more definitely separated than they are at present, that the public should be made to understand that it has no right to a physician's services, and that the services which individuals receive from physicians and do not pay for, are charity services.

THE RILEY HOSPITAL FOR CHILDREN

The state of Indiana is possessed of a new health asset since, on October 7, 1924, it came into control of the completed first three units of the James Whitcomb Riley Memorial Hospital for Children. In this hospital, which was dedicated on the seventy-fifth birthday anniversary of the beloved Hoosier poet of childhood, sick and crippled children of Indiana will be brought into health and strength, to face a future that is bright with hope, to become sturdy men and women of the future.

In this hospital physicians and surgeons who are completing their training in the Indiana University School of Medicine will have the opportunity to study cases of child diseases and deformities, to see cures effected while they watch the progress of the most modern treatment. At the same time student nurses will be receiving their training under the most favorable circumstances. In this respect the Riley Hospital for Children will be rendering its most effective service to the future of Indiana's citizenship.

The idea of the Riley Hospital for Children was born in the mind of an Indiana physician—Dr. Lafayette Page. He had cherished the dream

of seeing an institution devoted exclusively to the treatment of child diseases and deformities for many years. He was one of the group of close friends of James Whitcomb Riley who gathered in the office of William C. Bobbs immediately after the Hoosier poet's funeral to discuss the erection of a fitting memorial to Riley. It was proposed that Lockerbie street, famed in verses from Riley's pen, be converted into a children's playground. Other suggestions were made, but none had seemed to appeal to this group of Riley's friends until Dr. Page brought forth his suggestion that a children's hospital be erected to perpetuate the memory of the poet whose verses of childhood had made Indiana known the world over.

Many obstacles arose in the path of the committee that was formed by Hugh McK. Landon, L. C. Huesmann, Dr. Page, George A. Ball, Judge Ira C. Batman, Mr. Bobbs, Dr. William Lowe Bryan, J. W. Fesler, Benjamin F. Long, Dr. Carleton B. McCulloch, and Dr. Samuel E. Smith. The World war came while their plans were in process of formation, but as soon as that conflict had terminated, the executive committee of the Riley Memorial Association went forward with plans that resulted in the completion of \$1,500,000 of buildings and equipment, which an editorial in the New York Times has termed "A Perfect Memorial."

In the building of the Riley Memorial Hospital for Children, the executive committee sought the nation over for ideas that should be incorporated in the institution. The best of features of a large number of hospitals were adopted, some of these improved upon, and particular attention was paid to the equipment of the hospital for training purposes. The service wing, in which are located the kitchens, laundries, brace shop, employees' quarters, dining rooms for doctors and nurses, linen and supply storage and all other adjuncts to the complete hospital, were built with an eye to the future expansion of the institution. The power house that supplies steam and electric light and power to the Riley, the Robert W. Long Hospital and the Indiana University School of Medicine, was built with a \$400,000 appropriation by the general assembly of Indiana. It is conceded to be the most modernly equipped hospital and school power house in America. Its capacity can be doubled when the needs of the institutions it serves have exceeded its present facilities.

To attempt a word description of the medical and surgical appurtenances of the Riley Hospital for Children would be presumptuous. Every convenience for the use of doctor and nurse has been installed. There is not a square corner in the interior of the ward or service buildings where a germ might lurk. The main operating room is equipped with the latest known devices for the surgeon's use. The department of mechan-

ical therapeutics and the gymnasium, which is an important part of a children's completely equipped hospital, represent an investment of many thousands of dollars and many hours of study on the part of the Riley Hospital authorities. In all the Riley Hospital for Children is conceded by the company of notables from all over the United States who saw it on the day of its dedication, to be the finest children's hospital in America. To appreciate it, the institution must be seen at first hand.

Many readers of *THE JOURNAL* have visited and inspected the Riley Hospital. All Indiana physicians and surgeons should see this wonder-working institution. Their knowledge of disease and deformity gives them a readier appreciation of such an institution and its future possibilities.

The Riley Hospital is not complete. The units that were dedicated on October 7 include only the power house, administration and ward building and the service wing. There are to be added more wards and a convalescent building. These will be completed as rapidly as the gifts of generous Indiana men, women and children to the building fund of the hospital make it possible for the construction work to go forward. The parts of the hospital that are completed and ready for service today (October 20 was fixed as the date for the admission of the first patients) were built by the contributions of nearly 30,000 Indiana citizens—one in approximately every 100 of the state's population.

Dr. John H. Finley, editor of the New York Times, was in Indianapolis to attend the dedication of the Riley Hospital and to deliver an address at the dedication ceremonies. After he had inspected the institution and had returned to his home in the east, an editorial appeared in the New York Times in which it was said:

"The people of Indiana have just dedicated to the memory of James Whitcomb Riley a memorial that is fitting beyond anything that could have been conceived in marble or enduring bronze. It is a monument of ministry rather than of mourning. It will express itself for generations through the restored postures of health and joyous existence of thousands upon thousands of children."

Due to the experience and foresight of Dr. Samuel E. Smith, provost of Indiana University, the Riley Hospital for Children will serve the future generations of the state as long as the government of Indiana endures. The law, which was written by Dr. Smith, provides for permanent maintenance of the hospital without the necessity of the institution's managers going before the legislature each two years to pray for an appropriation.

The administration of the Riley Hospital is entrusted to the medical department of Indiana University, Dr. Samuel E. Smith, provost of the university, is the supervising head of the institution, and Robert E. Neff, administrator of

the Robert W. Long Hospital and registrar of the Indiana University School of Medicine, is administrator of the Riley Hospital. A committee, composed of Drs. Lafayette Page, John H. Oliver and John F. Barnhill, has been appointed to make recommendations on the selection of the hospital's staff of physicians and surgeons. Miss Veronica Stapleton, for two years head of the nursing staff of the Iowa State Hospital for Children, is superintendent of nurses at the Riley Hospital.

The Riley Hospital now is a possession of the state of Indiana, to be controlled by the medical department of Indiana University perpetually,

curing child diseases and deformities and sending out into the rest of the world skillful physicians, surgeons and nurses who will be better equipped in knowledge of child ailments to serve coming generations.

Indiana has reason to be proud of her accomplishment in the building of the Riley Hospital for Children. The medical profession has reason to be proud of the prominent part that has been taken by its own members in the inception of the Riley Hospital idea and in the carrying through to success the plans that have furnished Indiana with the finest institution of its kind in America.

SYSTEMIC INFECTION COMPLICATING PURULENT MIDDLE EAR DISEASE

Samuel J. Kopetzky, New York (*Journal A. M. A.*, Aug. 2, 1924), presents a detailed study of seventy-five cases of systemic infections complicating or accompanying middle ear disease. The cases are limited to those which came to operation, so that the pathologic conditions presented may be studied in relation to the clinical course, laboratory findings and roentgen-ray examinations. These observations lead to a definite grouping of the cases, each group being a distinct clinical entity, at once defined and comprehensible. Not only does the reclassification of these systemic infections, based on observed pathologic changes, make diagnosis more exact, but it also furnishes a more logical basis for the therapy and the management of the given case belonging to one or the other group. It will likewise clarify, and in the future obviate, the great amount of confusion evident in the current literature, wherein case reports of typical and atypical sinus thrombosis and the discussion thereof are treated in a floundering manner, with no attempt at the explanation of the underlying cause for the case's being atypical or typical. All cases of systemic infections fall into two groups: Group 1 consists of those which occur subsequent to purulent middle ear disease, and Group 2, those which accompany the original mastoid infection. An analysis of the pathologic findings in 146 consecutive cases of coalescent mastoiditis is given. The outstanding characteristic of this type of lesion is the gradual progression of destruction by pressure necrosis, associated with a continued attempt on the part of Nature to place barriers across its path of advancement. An analysis of thirty-one cases of systemic infection occurring subsequent to the incidence of a coalescent mastoiditis and which have been selected from the 146 cases is also made.

THE KNOWN AND THE UNKNOWN ABOUT PSORIASIS

A few years ago Jay Frank Schamberg, Philadelphia (*Journal A. M. A.*, Oct. 18, 1924), and George W. Raiziss carried out some studies (which have never been published) on the purin metabolism of psoriatic patients. They failed to find any disturbance of the uric acid metabolism. Unless there is incidentally a distinct renal factor present, the blood uric acid is normal. The question of any etiologic relationship between gout and psoriasis is answered definitely in the negative. There is no demonstrated evidence that psoriasis is associated with any disorder of the gastro-intestinal tract or of the pancreas. There is no special habit of body or any nutritive disorder associated with psoriasis. Attacks of psoriasis have been reported in the literature as coming on after shock, fright and similar causes. Some authors have suggested a neuropathic origin as the cause of the disease. Schamberg can find no adequate scientific basis to warrant psoriasis being regarded as a disease of nervous origin. Nor can he see any parallelism between

psoriasis and any disease of ductless gland origin. No parasite thus far found can be incriminated as the cause. However, on the basis of extensive studies Schamberg believes that there is a nitrogen retention in psoriasis, but no person possesses the scientific data that would warrant him in dogmatically affirming or denying the truth of either the parasitic or the metabolic hypothesis. The solution of the problem is for the future to determine. Until the cause of the disease is discovered, the most essential principle of therapeutics in psoriasis is to *inactivate the psoriatic process*; i. e., to convert the active into an inactive or quiescent stage. Then, previously ineffectual remedies become effective. Failure in clearing up the eruption in psoriasis is not caused by ignorance of what remedies to use, but when to use them. Even the roentgen ray, a useful palliative agent, commonly fails when used during an inappropriate stage. The failure to recognize the inefficacy of roentgen-ray therapy in an active psoriasis has sometimes led to this method of treatment being persisted in to an unwarranted degree. Schamberg has seen cancer of the skin follow such ill advised efforts. Schamberg favors a low protein diet, as an effective mode of treatment. He says if one places a psoriasis patient for a number of weeks on a diet containing about 4 gm. of nitrogen a day, without other treatment, one will observe, particularly in extensive eruptions, an astonishing involution. Per contra, a diet of 20 gm. of nitrogen a day will tend to aggravate an existing eruption. There are often simpler and more rapid means of bringing about an inactivation of the psoriatic process. Different substances and methods have from time to time been advocated. The intravenous injection of vegetable proteins such as an extract of alfalfa seed, suggested by Van Alsten; the injection of an enterovaccine containing chiefly the fecal streptococcus and colon bacillus, advocated by Danyasz and warmly commended by Sabouraud; the subcutaneous or intravenous injection of a typhoid or colon bacillus vaccine, and finally, autoserum injections. All these agencies doubtless act in a similar manner but in different degrees. They all produce a leukocytosis, proportionate in large part to the degree of reaction induced. They may have other side effects on antibody production, on the blood and skin enzymes, and likewise an influence on metabolism. Further light is needed on the exact biologic effects induced. One of the most useful of these procedures is autoserum injections. The injection tends to inactivate the psoriasis and aid in inducing a state of quiescence. During this stage, the roentgen rays, chrysarobin, and many other measures, promptly effect a disappearance of the eruption. While autoserum injections do not act equally well in all cases, Schamberg's experience is that they constitute a valuable therapeutic measure. There are a few cases that are refractory to inactivation by any procedure. It is possible that certain drugs, injected intravenously or intramuscularly, may, without design, produce a secondary foreign protein effect.

THE JOURNAL of the

Indiana State Medical Association

Devoted to the Interests of the Medical Profession of Indiana

ALBERT E. BULSON, JR., B.S., M.D., F.A.C.S.

Editor and Manager

Office of Publication, 406 W. Berry St., Fort Wayne, Ind.

NOVEMBER, 1924

EDITORIALS

CLEFT PALATE SURGERY

Much has been written concerning cleft palate surgery and it is conceded that all that has been said in textbooks other than in those printed recently is inadequate. Unfortunate results according to present standards were the rule rather than the exception a few years ago. Cleft palate surgery is not a phase of operative work that should be attempted by the tyro nor even the well trained surgeon who has not been especially trained for the work, for much depends upon not only the selection of the kind of operation to be performed but the careful following of a technic that must be exacting if the best results are to be secured. In a discussion of this subject before the Minneapolis Surgical Society, at its December meeting, attention was called to the large percentage of failures and the charge made that medical colleges utterly fail to teach their students the principles underlying this phase of surgery, and that as long as the uninformed continue to attempt surgery of the palate there will be failures.

Perhaps no one has done more to improve the technic and results of surgery of the palate than Brophy of Chicago. He, like other successful surgeons, advocates early operation which permits of a proper order of procedure, less shock and reaction, greater ease of manipulation and results in establishing correct function. He says that to delay operating until after habits of speech have been developed, which are frequently so defective that the individual can not be understood, is an irreparable mistake, for all surgery of the palate should have for its goal perfect function which, of course, means perfect speech. The test of success is the quality of enunciation resulting. Brophy emphasizes two fundamentals which should be recognized and given appropriate attention if satisfactory results either in form or function are to be secured. These are, first, the union of the separated bones of the palate, including the management of the premaxillae, and, second, the control of the tuberosities in their relation to the soft palate. Operation in early infancy is a necessity. A normal maxillary arch can be secured only by treating the parts in the same manner as one would handle a fracture, *i. e.*, removing intervening soft tissues and approximating the bony fragments. The premaxillae should there-

fore be moved into place after freshening the surfaces which are to come into contact. The compact bone should be removed, and then freshened surfaces of cancellated bone placed in contact and immobilized. When this is done the soft tissues covering the bones may be sutured with horse-hair. Brophy says that to divide the vomer, move the premaxillae back and make no attempt to unite them to the maxillae is unsurgical, can not produce a normal arch, and may be likened to the treatment of a fracture elsewhere without assuring bony contact and immobilization with the resulting nonunion. The wires should not be passed through the premaxillae but anterior to them and beneath the soft parts. An attempt to move the premaxillae backward should not be made in a patient younger than three months because the bones have not become sufficiently ossified to form alveoli. Besides, the lateral surfaces of the teeth often are covered by the soft parts only. Obviously the teeth, at this early age, may be displaced easily.

The technic of all palate operations deserves the utmost attention if the best results are to be secured, and Brophy emphasizes this matter in answer to the criticism of the average palate operation because it does not produce good results. He claims that failure is often due to faulty technic in methods that are known to produce good results in skillful, well trained and experienced hands. After attention, too, is a very necessary part of the management of the cases, and sometimes a bad result occurs in a well executed operation as a direct result of the poor after-attention. Brophy lays down definite rules concerning the technic of the operation and for the adjustment of the wire sutures and lead plates, and he concludes by saying that without proper attention to all of the details failure is likely to follow.

FOCAL SEPSIS

The relation of focal sepsis to secondary systemic infection has received considerable attention at the hands of the medical profession during recent years. Valuable contributions on the subject have come from many prominent teachers and clinicians but the rank and file of the profession seem to have misinterpreted the conclusions of these men or to have taken the matter so seriously as to go to the extreme in the removal of inoffensive organs that supposedly are the sites of focal sepsis. The sites of foci of infection are various, though, in the majority of cases, they are found in the teeth, the tonsils, and the accessory sinuses of the nose, and the list of complaints caused by absorption of toxins from these local foci is one of great length and includes nearly all of the inflammations and disturbances of function of the heart, kidneys, and joints, with a special tendency on the part of all physicians to attribute so-called rheumatism and neuritis to such causes. Toxic goiter recently has been added to the list of

affections that usually are due to local infection.

Before arriving at conclusions there should be convincing scientific evidence of the existence of a focal infection, and the study of a suspected case often requires the services of a competent nose and throat specialist, of an expert roentgenologist, and a competent dentist. An involvement of the accessory sinuses of the nose usually requires the combined services of the rhinologist and the roentgenologist, and a mild slumbering infection of the sinuses may tax the diagnostic acumen of both of these specialists and in a few instances may be questionable until an exploratory operation has been performed. Likewise the tonsils may appear inoffensive and yet be harboring a focus of infection that is pouring toxins into the blood stream, and the size and appearance of the tonsil are not always safe guides, as many a small and fairly normal tonsil will produce evidences of harboring an infection by the appearance of a purulent secretion when it has been cocainized and squeezed. The teeth are recognized as one of the most frequent sources of trouble through the existence of focal infection, and Rosenow maintains that pulpless teeth and blind abscesses are to be regarded as the most dangerous forms of dental sepsis. However, the extraction of suspected teeth must follow only the advice of a competent dentist and the findings of a roentgenologist.

The existence of multiple scattered foci must be taken into consideration, and the removal of all sources of infection, if failure to secure results is to be avoided. In all cases a very critical examination will be required, based upon the pathology of the case, if we are to avoid reckless surgery in the removal of teeth, tonsils and the opening of accessory sinuses.

UNREST IN COLLEGE OF SURGEONS

There has been a growing unrest and a spirit of dissatisfaction within the ranks of the American College of Surgeons which finally ended in two petitions to the Board of Regents, signed by prominent surgeons from various parts of the country, asking for certain changes in policy and management. Among the principal complaints are the following: That too many men are admitted to Fellowship that do not meet the requirements as originally laid down by the College, and that the College should adopt more rigid tests as to character, training and intelligence of candidates; that the membership includes men who have not the highest ideals because they are either fee-splitters or generally reputed to be paying commissions under one guise or another, and that the College has made no effort to clean house; that men who have been reported unfavorably by a State Committee on Credentials have been admitted, and that these men do not measure up to the original standard and many of them are immature; that there has been too much prose-

lyting of members and that there is too much of a tendency to build up a large organization without enough attention to the character of the men composing it; that the members of the College are not sufficiently conversant with the financial affairs of the organization and are entitled to know more in detail concerning the receipts and expenditures; that there has been undue and distasteful publicity in connection with the clinical congress held each year.

The petitions have been given attention by the Board of Regents, who have issued a statement in which for the most part they have answered the objections made. Hereafter each member of the College will receive a printed copy of the treasurer's annual statement setting forth in detail the income and expenditures. The question of publicity is controlled by a committee, and the Board of Regents promises that publicity shall be kept within proper scientific and professional limits. The policies of the institution are formulated by the Board of Regents and carried out by the director-general who is responsible to the Board of Regents for his action. In the opinion of the Board the director-general has acted loyally, wisely, and impersonally in the interests of the College as a whole, and he is not permitted nor has he attempted to substitute his judgment for that of the Board on matters of policy.

Concerning the question of immature surgeons, the Board calls attention to the fact that seven years' experience in surgery subsequent to graduation from medical school is required by the College for admission to Fellowship. One is led to infer that there have been no infractions of this rule. The Junior Candidate plan, or as some have termed it, the waiting list of the College, has been condemned, but the Board feels that the raising of the standard of professional efficiency and professional ethics within the field of surgery will be more successful if the young men can be brought directly within the sphere of influence of the College inasmuch as professional habits, particularly those within the field of ethics, ordinarily are formed within the first few years after graduation from medical school, and during that time the College will fulfill a worthy purpose if it urges these young men to adopt these ideals of professional efficiency and propriety.

The criticism concerning the low minimum standard for hospitals that receive the approval of the College is met by the argument that an effort should be put forth to bring all of the hospitals of America up to the minimum standard before formally raising the standard. There is no specific answer to the complaint that some of the hospitals that have been admitted do not even come up to the minimum standard and do not come up to the provisions of the College which require that membership upon the staff of hospitals be restricted to physicians and surgeons who are (a) competent in their respective fields;

(b) worthy in character, and in matters of professional ethics, and that in this latter connection the practice of division of fees under any guise whatever is prohibited. As a practical method of assuring itself that the staff of a hospital does not practice the division of fees the College requires that the entire staff sign a resolution or pledge not to engage in this practice. The Board admits that in some instances it is possible that the pledges are loosely signed and that in others they are broken. The Board states that where reasonable assurance can be had that members of a staff of a hospital do practice the division of fees the College refuses approval of the hospital, or if the hospital previously has been approved, drops it from the approved list. The Board very aptly says that "the College is under both moral and legal responsibility to act upon reasonable grounds in thus disapproving hospitals." In reality the approval of a hospital is like the approval of men for membership in the College, which should be withheld when the slightest suspicion attaches to the candidates. Taking hospitals or men into organizations in order to reform them is bad business.

We are very much in sympathy with the requests in the petitions (a) that more rigid tests as to character, training and intelligence be adopted; (b) that candidates rejected by local committees be not reconsidered for from three to five years except with the sanction of the Regents; (c) that proselyting be stopped; (d) that there be immediate ejection of all those who divide fees, and announcement to the profession of such ejections. All of these complaints have received due consideration at the hands of the Board except the latter, and that presents a problem hard to solve because of the difficulty of proving that a member practices the division of fees. In this connection we feel disposed to suggest that the fee dividers of every community are known, and general suspicion seldom is unwarranted, even if actual proof is unobtainable, so that if such men are taken into the College, no matter what their promises may be, the College runs the chance of harboring within its ranks men who will not live up to their obligations. There is a trite saying that "the leopard can not change its spots," which has been paraphrased, "Once a fee divider always a fee divider."

If the petitions filed with the Board of Regents of the American College of Surgeons by a number of the most prominent surgeons in the United States bears fruit, as seems probable, and the College more strictly adheres to its published principles, we shall have cause for general approbation and appreciation, for there is a real need of an improvement in the general standards of the profession, moral as well as intellectual, and the public ought to know that there is a difference between the honest, conscientious, well-trained surgeon and the purely commercial oper-

ator. The Board of Regents can not overlook the statement in one of the petitions "that there is a widespread impression that the present membership includes men that have not the highest ideals, who are either fee splitters or generally reputed to be paying commissions under one guise or another, and there has been no evident effort to clean house." Neither can the Board overlook the assertion that there is a conviction that many of the men admitted do not measure up to the original standard and that many are immature. Furthermore, there is no use in dodging the statement that the College can take a long step to reinstate itself in the confidence of its original members by getting rid of dishonest members who are recognized as fee splitters, or those who pay commissions, and will do a distinctive service if it adopts higher standards for the recognition of hospitals, and if it pays more attention to quality and less to the quantity of work done in and by hospitals. The demand made in one of the petitions that no hospitals admitting patients of fee splitters should be approved, is worthy of consideration.

The concluding paragraph of one of the petitions is worthy of the serious consideration of the College and is as follows: "We believe that the American College of Surgeons has achieved so high a place in the profession of America that too much effort should not be given to the development of the numerical and financial strength at the expense of dignity, sound selection of members and a genuine idealism in professional standards."

EDITORIAL NOTES

DEAR DOCTOR:

THE JOURNAL and the Cooperative Medical Advertising Bureau of Chicago maintain a Service Department to answer inquiries from you about pharmaceuticals, surgical instruments and other manufactured products, such as soaps, clothing, automobiles, etc., which you may need in your home, office, sanitarium or hospital.

We invite and urge you to use this Service.

It is absolutely FREE to you.

The Cooperative Bureau is equipped with catalogues and price lists of manufacturers, and can supply you information by return mail.

Perhaps you want a certain kind of instrument which is not advertised in THE JOURNAL, and do not know where to secure it; or do not know where to obtain some automobile supplies you need. This Service Bureau will give you the information.

Whenever possible, the goods will be advertised in our pages; but if they are not, we urge you to ask THE JOURNAL about them, or write direct to the Cooperative Medical Advertising Bureau, 535 N. Dearborn St., Chicago, Illinois.

We want THE JOURNAL to serve YOU.

THE New York State Department of Health calls attention to the laxness of certain physicians in not considering poliomyelitis as a communicable disease and isolating the patients suffering from that disease. The mild as well as the severe cases should be isolated.

WE like the suggestion offered that the abbreviation "Dr." be omitted and the "M.D." added. The prefix "Dr." means nothing, for it is used by every corn parer and members of all of the pseudo-medical cults. Adding the degree to the

name indicates that a full course in medicine has been taken.

AGAIN it is the time of year for paying medical society dues. Members of the Association are reminded that payment of dues should be made some time in December and certainly before the first of the year. Dues become delinquent on February 1 and no delinquent is entitled to any of the advantages of membership in the Association.

MEDICAL men probably never will overcome the dabbling of lay persons in purely medical problems, but we can put a crimp in such activities by refusing to have anything to do with them. Medical problems should be solved by medical men without the intervention of lay persons who interest themselves for commercial reasons or to exploit themselves.

THE treatment of diabetes has been revolutionized through the discovery of insulin, and it all was brought about through animal experimentation on dogs. All of the diabetics in the United States, supposedly numbering approximately one million persons, should not only be acquainted with this fact, but every mother's son of them should fight the antivivisectionists who are trying to prohibit animal experimentation.

THE American Medical Association is supporting legislation now pending in Congress to restrict the indiscriminate sale of concentrated lye and other caustic and corrosive substances as well as to enforce proper labeling of the same. Aside from Federal legislation bearing upon this subject, an attempt will be made to secure similar legislation in the various states, and Indiana should be in line in this progressive step.

How many Indiana doctors know anything about the character of medical and surgical work done at our state institutions? Following the cue received from a neighboring state we are going to publish in *THE JOURNAL* some information concerning the medical work of our state institutions, and we hope that what will be furnished will prove of interest to the readers of *THE JOURNAL*.

SUCH organizations as the Rotary, Kiwanis, Optimist, Lions and other clubs of similar nature have, in many localities, made requests for medical talks before them by representative men of the regular medical profession. This is a spirit that should be encouraged, and we ought to embrace the opportunity to talk before such representative men concerning what has been accomplished by scientific medicine and, at the same time, point out, in a logical way, the inconsistency in the teachings of the pseudo-medical cults.

CARBON tetrachloride, a cheap and common chemical, has been found very successful in the treatment of hookworm disease. Its effect upon hookworm disease in domestic animals was discovered first and then tried out on the human. The government announces that this very valuable discovery cost a few hundred dollars and thirty dogs. It is time for the antivivisectionists to put up another howl.

WE have been assured by the editor of "Who's Who in American Medicine" that the book will be thoroughly trustworthy and follow high ideals in its preparation. The idea of fixing a very definite standard of admission, and excluding all medical pretenders or others who have not done distinctive service in connection with the medical profession or its work is a good one and is receiving support from prominent medical men all over the United States.

DOCTORS frequently are asked to discuss medical subjects before lay organizations and right now such organizations as Rotary, Kiwanis, Optimists, Lions, and similar business and social clubs are inclined to have medical talks on their programs. It is unfortunate that so many able medical speakers talk to lay audiences in technical language. As a matter of fact in order to "put over" a medical talk before a lay audience it is necessary to present the subject in a layman's language that any layman of average intelligence can understand.

THE *Mitchell Tribune* says that the Lawrence County Medical Society is advertising that it is about to revise the dead-beat list and that those wanting to get on this list may do so by not paying their doctor bills.

The retail merchants have a credit rating list, and it is a hard matter for a dead-beat to get anything on credit from his grocer or dry goods merchant, so why should he get credit from the doctors? If he really is unable to pay anything, no doctor will refuse him services as charity, but every doctor ought to refuse to take care of those able to pay but will not.

INFANTILE paralysis is present in various sections of Indiana and seems to be on the increase. Health authorities are quite concerned because, apparently, many cases are unrecognized or wrongly diagnosed. Physicians called to attend children suffering from any of the symptoms that may be the onset of poliomyelitis should be on their guard, and it would be well for all of them to take into consideration the good results secured in a fair percentage of cases by the use of Rosenow's serum. In this number of *THE JOURNAL* we publish case reports that are interesting as showing the beneficial results following the use

of Rosenow's serum, and the author refers to literature upon the subject.

DEATHS from carbon monoxide poisoning are on the increase, and the United States Public Health Service urges that a general warning be given to automobile owners concerning the danger involved in running a gasoline engine in a small closed space for any considerable period of time inasmuch as the automobile worker in a small garage is most frequently the victim. Every person who runs his automobile engine in a small room should see that there is plenty of ventilation by having the windows and doors open, even if the engine is to be run only a few minutes. Carbon monoxide is a colorless, tasteless and almost odorless gas, and its inhalation causes death from paralysis of the respiratory apparatus.

THE American Medical Association publishes a number of journals other than *The Journal of the A. M. A.* Each of them is a leader in its class. Beginning with January, 1925, another journal is to be added to the list under the title of "The Archives of Otolaryngology," and this new journal on diseases of the ear, nose and throat will be published monthly by the A. M. A. under the control of an editorial board with Dr. George E. Shambaugh, of Chicago, as chairman. The announcement, which undoubtedly is worthy of acceptance, indicates that the Archives of Otolaryngology will be in keeping with the scientific quality of the other special journals published by the A. M. A., but while scientific it will be practical. Technic, management of cases and case reports will be given due consideration.

AGAIN referring to the chlorine gas treatment of certain infections of the upper respiratory tract, commented upon in the October number of *THE JOURNAL*, we note that a recent number of the Bulletin of the New York City Department of Health has the following to say: "Unfortunately the observations of the chief medical officers of the department of health who have been studying the value of chlorine gas in respiratory diseases has failed, thus far at least, to substantiate the reports of benefits from the use of this gas. Should the department in the course of further researches find reason to change its present opinion, the members of the medical profession will be promptly informed." This ought to be a blow below the belt to those who are equipping their offices with expensive chlorine gas outfits.

ON every hand we hear about the iodine treatment for goiter, and the proprietary medicine manufacturers are in their glory since they can advertise iodine preparations both to prevent as well as cure goiter and truthfully maintain that medical authorities approve of the iodine treatment. If it isn't iodine salt, candy or chocolate,

it is a special proprietary compound of iodine that has particular merit in preventing or curing goiter. Perhaps it is just as well to inform our patients that there is such a thing as a misuse of this iodine treatment, and that like pepper on potatoes a little of it may be desirable but a good deal of it is positively harmful, and that the prevention or cure of goiter should be governed by certain rules that are best known to the reputable physician and whose advice should be sought.

OF course you read the advertising pages of *THE JOURNAL*. It is surprising how many interesting things you find mentioned in the advertising pages. Oftentimes new ideas are brought to the attention that otherwise might not be known, and sometimes an advertiser makes an offer to furnish samples or something else that is of distinct value in the doctor's day work. Even the furnishing of prescription blanks with the doctor's name and address and office hours printed thereon may be an advertising stunt, but at the same time it gives many a doctor an opportunity to get something for nothing. Best of all the advertising pages contain the announcements of things really worth the attention of the busy practitioner of medicine, and we urge every reader to read the advertising pages for the benefit derived therefrom.

THE Ohio State Board of Health has defined the words "hospital" and "dispensary" for the purpose of registration as follows:

"Any institution or establishment, public or private, for the reception and care of persons for a continuous period longer than twenty-four hours, for the purpose of giving advice, diagnosis or treatment bearing upon the physical or mental health of such person, shall be considered a hospital."

"Any institution or establishment, public or private, for the purpose of giving advice, diagnosis or treatment bearing upon the physical or mental health of an individual shall be considered a dispensary; provided that a hospital and the quarters of a licensed practitioner of medicine used for his private practice shall not be deemed to come within the meaning of this definition."

READERS of *THE JOURNAL* should notify us promptly of change of address. Scarcely a month goes by that we do not receive numerous complaints concerning failure to receive *THE JOURNAL* when, as a matter of fact, a change of address has been made and no notification concerning it sent to us. Doctors who reside in the city and change from one office building to another are the worst offenders, largely for the reason that they believe that they are sufficiently well known so that their mail will follow them anyway, though such is not the case, as the post

office department makes no attempt to follow up changes of address when delivering second class mail. Notification of change of address will receive our prompt attention, and upon request, insofar as possible, we will supply duplicates to take the place of those copies of *THE JOURNAL* that go astray in the mails.

THE special articles on glandular therapy now running in *The Journal of the A. M. A.* should be read widely. They are prepared under the auspices of the Council on Pharmacy and Chemistry. In the opening article Dr. Frank Billings sounds the keynote when he says that for the most part there are no well-established facts on which glandular therapy, except in deficiency of the thyroid and pancreas, can be accepted. He further says: "The existence and continued pernicious influence of the manufacturers of glandular products who publish statements concerning their therapeutic value without the support of established physiological and clinical facts will depend upon whether the medical profession will patronize them. A decided forward step will be taken if physicians will limit the use of animal organ preparations to those listed in the United States Pharmacopeia and the current edition of *New and Nonofficial Remedies*."

IN England they are complaining because so many women study medicine and then, failing to make good in private practice, resort to government service. Much has been said concerning the inability of women to meet all of the requirements in the successful practice of medicine, and when all is said and done it must be admitted that, except in certain fields, as for instance, laboratory workers, technicians, or in practicing a few of the specialties, women, for the most part, do not measure up to men. This is not a reflection upon their mentality, but rather a conclusion based upon an analysis of requirements and results in the practice of medicine in the fullest acceptance of the term. The fact of the matter is that it is impossible for them to adapt themselves to all of the phases of medical practice, and we are glad that it is so, for it will be a sorry world when we cease to consider the "gentler sex" and pay homage to it as the one that should be exalted in our social life.

AUTOMOBILE accidents are increasing daily. Some are due to recklessness in driving, others to carelessness of pedestrians, still others to poor eyesight of drivers, and perhaps the latter is the cause of as many accidents as anything else. It is time to have laws passed which shall require every driver of an automobile to prove that he has a standard of vision that will be considered sufficient for safe driving so far as eyesight is concerned, and making it a criminal offense for those with vision less than that standard, not

corrected with glasses, to drive motor vehicles. Whatever is done in the way of establishing minimum visual requirements for motor drivers should apply equally to all states, and traffic executives in general should be interested in the adoption of a uniform standard. There is no reason why the federal government should not define visual standards and take the lead in offering recommendations. If visual requirements of motor vehicles are required in every state it will be one means of lessening the present terrible toll of human life.

It may not be generally known that there is a large waiting list for admission to the National Leprosy Home in Louisiana. It is estimated that between five hundred and one thousand lepers are still at large in the United States. Except the disease be in its last stages, the average person never would recognize it. Lepers have been known to live in communities for years before being recognized as such. An interesting phase of the subject is that special preparations of chaulmoogra oil seemingly cure the disease, though the government physicians in discharging lepers from the leprosy hospital in Louisiana merely certify that the disease has been arrested and that these persons are no longer a menace to the public health. The government now is arranging to enlarge the facilities at the leprosy hospital and it is thought that the isolation and treatment of the unfortunate victims of this terrible disease will diminish the spread of leprosy in the United States. Health officers everywhere should get in touch with the United States Public Health Service whenever a person thought to be suffering from leprosy is discovered.

IN many states, as a result of the Sheppard-Towner Funds, a rather active campaign is being carried on for the promotion of a maternity, infancy and preschool child hygiene program. In some localities the services of local physicians, all that is required, are compensated for in keeping with the value of the services, but in other localities, on the plea that the funds are not adequate, the physicians are asked to do the work gratuitously. Of course, all the nurses and nearly all others outside of the medical profession who are interested in this work are paid for their services, but the doctor who renders the most valuable services of all is expected to donate his work for the good of the cause and oftentimes the professional services are rendered to patients who are far better off than the doctor who renders them. It reminds us of the free clinics in our large cities by noted medical men where some women, dressed in fine clothes, bedecked in jewelry and driving up in limousines, apply for attention because they know that the physician or surgeon conducting the clinic is trustworthy and the services will be gratuitous.

THE ninety-five-year-old Lothario who went to New York to sow some of his wild oats gives credence to the expression that "A man is only as old as he feels." Twenty-five years ago men retired and classed themselves as old men at fifty to sixty years of age. Seldom if ever did such men cut any capers such as you hear of today. In fact in this present age it is the rule for men to "die in the harness," as they say, and many of them at an advanced age are active in the pursuit of business as well as pleasure. Back of all this is a logical reason for the apparent increasing longevity of human life, and it is the systematization of our efforts, both in work and play, more regard for the sanitary and hygienic conditions under which we live, and, lastly, more attention to health problems. Not a few predict that within the next twenty-five years men active in vocations at ninety-five and one hundred years of age will be common. Perhaps the youthful feeling Lothario who, according to newspaper reports, has just gone to New York to sow some of his wild oats is but the forerunner of a lot of chaps of that type in the future who will be so common as not to cause comment.

A FEATURE of the campaign that has just closed that was so ridiculous as to be amusing was the letters published in the correspondence department of several Indiana newspapers, presumably by members of the League for Medical Freedom, in which the charge was made that if a medical man was elected governor of the state we could expect that an attempt would be made to compel all persons to subject themselves to all sorts of operations and treatment in the interests of public health. Among the things mentioned as possible under the "tyranny of the medical profession" was removal of all tonsils, the subjection of all people to vaccination against smallpox and typhoid fever, and in addition children were to be forcibly vaccinated against diphtheria, scarlet fever and infantile paralysis. The further charge was made that people would be shut up like sheep for real or fancied disturbances in general health, and the whole picture was painted as one fraught with the greatest possibilities of tyranny. Probably the extent of the misrepresentation and the rabid manner in which it was presented found no sympathy among readers, but it only goes to show to what extent fanaticism will run.

It is surprising how many purely medical problems are attacked by lay interests. Funds are appropriated by lay organizations and by state and federal governments that are spent for directors or office employees, field agents, and in the collection of useless statistics. The maternal welfare work financed through the provisions of the Sheppard-Towner act is a case in point. Money that should be expended for doctors, visiting nurses and hospitals to care for these women

is wasted in the collection of information and carrying out a lot of ideas that are of no practical importance in maternal welfare work. The medical profession should interest itself in the proper expenditure of these moneys and then real scientific progress can be made. The provisions of the Sheppard-Towner bill never will correct evils that require community interest and the cooperation of the medical profession. Large appropriations of money devoted largely to the collection of statistics by lay persons and nurses is a waste of money for, as is well known, you can make statistics tell any kind of a story. It is high time that the medical profession be sponsor for the movements for bettering maternal welfare as well as public health in general, and the voice of the medical profession rather than lay persons be made the guide in problems that are purely medical.

WE have received a reprint containing a full page picture of the president of one of the prominent medical associations and a record of all of his accomplishments and activities from birth up to the present time, not omitting a list of all of his contributions to medical literature and quotations from speeches before various organizations. A reprint primarily is procured for distribution, and we have been wondering just what reason there is for the distribution of such an eulogistic pamphlet unless it is for self-exploitation. Furthermore, we cannot quite reconcile ourselves to the propriety of such publicity, even though the reprints do not fall into the hands of the laity. There are many ways that we consider as legitimate and perhaps ethical in advertising ourselves as professional men, but certainly some of those ways very properly can be considered in bad taste. Medical men who really have done things worth while oftentimes cannot control the overzealousness of friends who advertise him or prevent undue publicity given him by the lay press which may not receive his encouragement or assistance nor consult him concerning their activities, but every doctor can so shape his own actions that he will deserve the reputation of being reasonably modest and an adherent of the ordinary rules of propriety.

A DOCTOR in the State of Washington advertises as follows:

"I am the man who signs your birth certificate and may have to sign some other certificate. I stand by you in the hour of your greatest happiness and the hour of deepest sorrow. I listen to your confessions not breathed to another soul and I keep them inviolate.

"My life work is consecrated to serving and ministering to your physical wants, night or day, rain or shine, hot or cold, dry roads or muddy. I am at your beck and call; I sacrifice my rest,

my pleasure and my strength to relieve and comfort you.

"As I wend my way past the year stones of life toward the eternal sun set, I am striving to be more charitable, more unselfish and more kindly toward my fellowman.

"I am the first one you think of in time of sickness and the last one thought of in time of health.

"I am not rich, because I serve suffering humanity, which embraces the poor, whom we have always with us.

"I am the man who cannot pay his grocery bill, his dry goods bill, his garage bill, or in fact any bill on earth that I owe until I am paid by you. I am

YOUR FAMILY DOCTOR."

THE *Journal of the A. M. A.* editorially calls attention to the unscientific and oftentimes inconsistent ideas that are being promulgated in both lay and professional press concerning the causes and cure of obesity. How to get thin is a topic for everyday discussion among most women and some men, and this idea of losing avoirdupois, while encouraged in women by the thought that they look better if thin and willowy, is also encouraged to a considerable extent by some physicians who preach the doctrine of the existence of disease in those who are stout, and by certain life insurance companies who call over-weight persons bad risks, and the whole attitude is food for the quacks and charlatans who take advantage of the opportunity to fleece the gullible. *The Journal of the A. M. A.* points out that there is no characteristic change in the basal metabolism of the obese, and that the energy charge is no less to the obese than to those of normal weight. Obesity in certain persons may occur on food intakes much below their caloric requirements, and the specific dynamic action of protein is decidedly less marked in the obese than in the normal. The opinion is expressed that there probably exists an anomaly of fat metabolism in the obese, the exact nature of which has not been ascertained. Therefore, obesity should be considered as a scientific problem.

FROM time to time the leading daily papers in Indiana carry full page advertisements of a quack gland treatment whose sponsors give a Chicago address. In glaring headlines, the public is told, "Your glands wear out," and then the enticing information is given that "even though seventy years of age you can regain your vigor and be as young as at twenty-five if you take the marvelous gland treatment which is offered." As a matter of fact the editors and publishers of daily newspapers know perfectly well that such an advertisement on its face brands itself as a fake, and the publication of such an advertisement makes the newspaper owners a party in a deliber-

ate swindling game which is perpetrated upon an ignorant class of people who deserve protection because they are easily deluded by such specious claims. The question is, why do not the honorable and well intentioned owners of lay newspapers investigate the standing of quack doctors and medical institutes of every kind before accepting their advertising, and in particular investigate their claims. Probably there isn't a newspaper in Indiana that ever did advertise a distillery, brewery, or saloon or bootlegger, but if they did do it it would be heavenly conduct as compared to the hellish practice of carrying the advertising of quack doctors and the endorsement of fake medicinal preparations. This whole question is deserving of the attention of reformers who are wasting their time upon a lot of other abuses that are trivial as compared to this.

WE often have said that *Hygeia* is a wonderful magazine for lay readers, and, edited and published as it is by the American Medical Association, it is trustworthy, but this wonderful magazine is not pushed by the medical profession as it should be. Every doctor should subscribe for it and have it on his reception room table, and every doctor should see that *Hygeia* gets into as many homes as possible and particularly that it is on the reading table of offices, clubs and organizations of every character. We notice that secretaries of some county medical societies in Indiana are printing on every notice or program of meetings a reminder that members should subscribe for *Hygeia*. Such a practice is deserving of being copied by every medical organization in existence. A point to be remembered is that *Hygeia* takes the place of a number of so-called health magazines or periodicals devoted to physical culture that are either worthless or so pernicious in their influence as to make them untrustworthy. Why not urge all lay individuals to supplant such trash with *Hygeia* which not only covers the question of individual and community health in a thorough way, but is the most trustworthy periodical of the kind published in the world. However, the object of this editorial note is to tell Indiana doctors frankly that they are untrue to themselves and their profession if they do not push *Hygeia*, which can be a most potent factor in educating the public. We talk much about educating the public, but we do not do much more than talk. If the doctors will get busy and push *Hygeia*, we will do something that will accomplish a world of good, and *Hygeia* certainly talks.

IT would pay accident and health insurance companies to select capable and well-trained medical men to pass judgment upon medical reports from policy holders in connection with claims. It is a little exasperating for a busy practitioner to have to be bothered with a lot of irrelevant and

unnecessary questions concerning the sickness and injury claim of a patient from a relatively poorly educated and illy trained medical director of some small accident or health insurance company that takes advantage of every possible technicality in order to get out of the payment of claims. As a sample of what can occur we cite the following: A man who was disabled from a severe membranous sore throat, due to a pneumococcus infection and who in making out his claim for indemnity frankly stated that occasionally he had some sore throat, was informed by a medical director of a health insurance company that his trouble was chronic and, therefore, he was not entitled to recover on his policy. A similar occurrence happened in a case of Vincent's angina. In still another case the company had the unmitigated nerve to write the policy holder that they questioned the diagnosis of his condition as reported by a very competent and well-known general physician. Perhaps it would be well for some of these accident and health insurance companies to consult an A. M. A. directory so that they can learn something about the standing and training of the medical men who fill out reports of sickness or injury, and, last but not least, some of these companies could save a good deal of money and certainly some reputation if they used a little better judgment in the selection of their medical directors.

THE danger to the public in permitting any sort of recognition of drugless healing is emphasized by incidents frequently occurring in which disciples of some of the drugless cults attempt to practice medicine in the usual way by employing or prescribing drugs without having been educated as to their use, and quite recently an osteopath in Ohio has been prosecuted for the death of a child for whom he not only attempted to do a tonsil and adenoid operation but served as his own anesthetist by giving chloroform. We always have maintained that every last one of pseudo-medical cults aims to secure the privilege or even the right to practice regular medicine through a short cut in qualifications, and this fact has been proven by the course of events, as many osteopaths, chiropractors, neuropaths and numerous other pretenders are utilizing and prescribing drugs almost as freely as our regular practitioners of medicine but without going through the necessary education and training in a knowledge of materia medica and therapeutics. Not a few of the so-called optometrists, or "eye-sight specialists," as they advertise themselves, are prescribing drugs and even writing prescriptions for drugs to be used in the treatment of real or fancied eye diseases, and the worst of it is there are any number of druggists who will fill such prescriptions.

It seems to us that this whole question ought to be analyzed on its merits and the facts placed

before the public and especially our legislators. Too often the whole discussion hinges on the question of the causation of disease, and an erroneous idea as to the means of arriving at a conclusion, and last, but not least, the idea that practitioners of regular medicine are opposed to the cults because of the competition. We owe a duty to the public to make the facts known, and in a manner that leaves no room for doubt as to our interest in the question. When the public is given the facts our duty ends, but up to the present time the cults have devoted more time and expense to the education of the public than have we, and it is the propaganda of the cults that has given them the standing that they have at the present time.

THE antivivisectionists are cracking their heels together and chuckling with great glee because a foolish old maid in Boston has bequeathed three hundred thousand dollars "to protect dumb animals from the cruelties of vivisection." Perhaps the same old maid bequeathed a like sum to provide the comforts and luxuries of life to all the stray alley cats and dogs that can be collected. It is unfortunate that she could not have seen the justice of using her money in helping suffering humanity instead of indirectly aiding in continuing or even promoting diseases that destroy human lives and health and which, through the results of animal experimentation, may be prevented. As the *Boston Medical and Surgical Journal* well says, "Everyone, except those few sentimentally unbalanced persons who are unable to see the logical conclusions of their emotions, admits that the present organization of the world demands the subordination of animals to human welfare. If this were not so, we would be pushed off the globe by the depredations of the carnivorous and the consumption of our food supply by the herbivorous * * *. Strictly speaking there are no 'cruelties of vivisection,' for cruelty, according to Webster's dictionary, consists of a disposition to give unnecessary pain or distress to others. * * * The members of the medical profession are neither cruel nor cold blooded. We have yet to meet a man devoted to research who causes needless suffering or who derives any pleasure from such suffering as cannot be avoided. Whenever animals have to be used for experimental purposes they are handled in the most humane manner possible. The laboratories in which this work is being done are connected with medical schools and hospitals and their activities are supervised by the responsible officers of those institutions."

It is unfortunate that some well-to-do people are so governed by sentiment that they give way to a desire to foster, at the expense of their wealth, an enterprise that has no excuse for existence. Not long ago we read of an old maid who left fifty thousand dollars for the care of

two pet dogs who during their lives were to be housed, fed, petted and pampered by a nurse whose compensation was provided for in the bequest. We shall not be surprised if some day we hear that a mentally unbalanced person possessing means bequeathes a fortune for the purpose of purchasing flivvers for the Hottentots or overcoats for the naked natives of the Fiji Islands. Our laws permit one to bequeathe money as suits his fancy or purposes, but it is unfortunate for the world that we cannot establish a standard of consistency covering the usefulness of bequests and preventing the financial maintenance of enterprises that are harmful to the health and happiness of the human race.

THE story concerning the girl who had a mole on her back and was given a certificate by her family physician to the effect that she had a sore which prevented her from taking physical exercises at school is an old and probably a true one. We have in our possession a school excuse which, deleting the names, but otherwise exactly duplicated, is as follows:

Sept. 27, 1924.
this Certefees that i am treating Miss _____
for blader truble and Wuld recomand that
She be excuzed frome taking exsices and jim-
masum for Some time to Come.
Yours, _____, M.D.

The letter was written and signed by a doctor who is licensed to practice medicine in the State of Indiana and, we are ashamed to admit it, is listed in the last American Medical Association directory as being a Fellow of the American Medical Association. The lamentable fact in connection with this matter is that the laws of Indiana compel the school authorities to accept this certificate and abide by its recommendation. Perhaps some may wonder why this man is even licensed to practice medicine, and we can answer it by saying that he began practice just prior to the enactment of our present registration law and at that time it was possible for any man, whether he ever saw the inside of a medical college or not, to be licensed under the new law, which could not be made retroactive, providing a sufficient number of property holders certified that he had practiced medicine and surgery in the community for several years prior to the enactment of the registration law. However, the doctor in question is a graduate from a medical college, though not of the regular type.

It is enough for the state to be burdened with any practitioners such as the one whose letter is herewith reproduced, without adding a lot of other pretenders many of whom have less common school education than this one and probably infinitely less training in the art and science of medicine. Isn't it time for the people to realize the importance of having as their doctors men who not only have had a good general education

but thorough education and training in all that pertains to the art and science of the practice of medicine? In our fight for higher standards of education for the practice of medicine we ought to get away from any arguments as to the merits of different kinds of therapy for they should not enter into the controversy. A physician who has a good general education equivalent to high school and two years of university, and has added to that four full years of training in any of our university medical schools and a fifth or intern year at a hospital can be trusted to select therapy intelligently and with a full knowledge of its limitations. He may decide to use drugs, massage, psychotherapy, or Christian Science jabbering, but whatever treatment is selected will be based upon consistency and knowledge acquired through education and training.

DEATHS

J. W. SPICER, M.D., of Acton, died October 22, aged seventy-one years. Dr. Spicer graduated from the Cincinnati College of Medicine and Surgery in 1878.

SILAS R. COWGER, M.D., of Monticello, died October 12, at the age of seventy-seven years. Dr. Cowger graduated from the Eclectic Medical College, Cincinnati, in 1879.

RICHARD T. COLLIVER, M.D., of Bainbridge, died October 12. Dr. Colliver was seventy-six years of age. He was a graduate of the Eclectic Medical College of Cincinnati in 1882.

CHARLES W. MICHAEL, M.D., of Independence, died October 19, at the age of sixty-seven years. Dr. Michael graduated from the Central College of Physicians and Surgeons, Indianapolis, in 1897.

I. D. GARRIGUES, M.D., of Brookville, died October 4, at the age of sixty-eight years. Dr. Garrigues was a member of the Franklin County Medical Society, the Indiana State Medical Association and the American Medical Association. He graduated from the Medical College of Cincinnati in 1891.

J. F. THOMPSON, M.D., of Newcastle, died October 10, aged seventy-three years. Dr. Thompson graduated from the Cleveland University of Medicine and Surgery, in 1875. He was a member of the Henry County Medical Society, the Indiana State Medical Association and the American Medical Association.

HOMER N. OLIPHANT, M.D., of Frankfort, died September 29, at the age of forty-four years. Dr. Oliphant was chief surgeon for the Clover Leaf division of the Nickel Plate Railroad. He

was a member of the Clinton County Medical Society, the Indiana State Medical Association and the American Medical Association. Dr. Oliphant graduated from the Illinois Medical College, Chicago, in 1908.

NEWS NOTES AND PERSONALS

Anything in the line of physicians' supplies or equipment may be obtained from advertisers in *THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION*. Patronize these advertisers, for it means a continuance of their advertising patronage, and the latter means a larger and better Journal for you.

THE Wells County Medical Society held a meeting in Ossian, October 21.

THE Washington County Medical Society held a meeting at Salem, October 8th.

DR. E. FELDMAN, recently of Gary, Indiana, has located in Hollywood, Tennessee.

DR. H. W. MARKLEY has changed his location from Redkey, Indiana, to Rochester, Indiana.

DR. AND MRS. J. A. SIMS, of Pine Village, celebrated their golden wedding anniversary on Sunday, October 19.

DR. LEWIS C. RENTSCHLER, of Clay City, Indiana, desires a young physician to take his place temporarily for the winter months.

DR. H. L. BROOKS, of Michigan City, and Miss Florence Tometz, of Chicago, were married October 10. They are making their home in Michigan City.

THE Kosciusko County Medical Society held its regular meeting at Warsaw, October 21. Papers were presented by Drs. J. E. Potter and W. C. Landis.

THE St. Joseph County Medical Society held a meeting at South Bend, October 14. Dr. J. S. Coulter, of Chicago, and William R. P. Emerson, of Boston, presented papers.

THE Wabash County Medical Society held a meeting at the Young Hotel, North Manchester, October 20. Dr. Eric Crull, of Fort Wayne, presented a paper on "Tuberculosis."

THE Northeastern Indiana Academy of Medicine held a meeting at Gawthrop Inn, Kendallville, October 16. Dr. Dean Lewis, of Chicago, presented an address on "Fractures."

DR. H. D. CAYLOR, of Bluffton, has gone to Rochester, Minnesota, where he will serve on the staff of the Mayo Clinic for one year, after which he will return to his practice in Bluffton.

THE Madison County Medical Society held a meeting at the Ella Kehrler Tuberculosis Hospital, Alexandria, October 21. A paper was presented by Dr. Harry Langdon, of Indianapolis.

DR. G. G. ECKHART, of Marion, was host to the doctors and nurses of Grant County at a guest meeting of the Grant County Medical Society which was held at the Marion Country Club, October 15th.

THE Tenth District Medical Society held a dinner meeting at the Hotel Lembke, Valparaiso, October 30. Papers were presented by Drs. S. J. Young, Paul B. Magnuson, B. C. Corbus and Harry E. Mock.

THE Jasper-Newton County Medical Society held a meeting at Kentland, Indiana, October 31. Dr. C. E. English and Dr. J. T. Martin presented papers. Dr. W. C. Mathews was host for the Society meeting.

THE Culver Military Academy dedicated the new Culver Legion Memorial Building, November 2, 1924. The building has been erected in memory of the Culver men who gave their lives in the World War.

THE Tri-County Medical Society held a meeting at North Vernon, October 15th. The meeting was addressed by Drs. James H. Stygall, Frank Abbott, Louis Segar and Robert Moore, all of Indianapolis.

JAMES Y. WELBORN, of Evansville, is at one of the Indianapolis hospitals where he is recovering from an operation. He announces that he will take a little vacation and return to his regular work on January 1, 1925.

JOHN R. PEARSON, M.D., a graduate of Indiana Medical College, and located at 201 Calumet Building, Miami, Florida, is carrying a professional card in *THE JOURNAL* with the idea of having Indiana doctors call on him when visiting Florida.

THE Third Councilor District Medical Society held a meeting at Jasper, October 21, 1924. The following officers were elected: President, John Asa Gibbons; vice-president, Walter C. Sherwood; secretary, William H. Dings, all of Mitchell, Indiana.

NEARLY every member of the Elkhart Academy of Medicine and a few doctors from Goshen and Leesburg attended the banquet given in honor of Dr. G. W. Spohn, of Elkhart, who has retired from the practice of medicine and has gone to California to make his home.

A DINNER meeting of the Knox County Medical Society was held at the Grand Hotel, Vincennes, October 14. A number of guests from neighboring counties and from Illinois were present. Dr. George D. Marshall, of Kokomo, presented a paper, his subject being "Foot Ailments."

THE American Society for Clinical Investigation has founded a journal, which is called the "Journal of Clinical Investigation." Dr. G. Canby Robinson, of the Vanderbilt University Medical Department, Nashville, Tennessee, is editor-in-chief. The first issue of the journal appeared in October.

AT the last meeting of the Indianapolis Ophthalmological and Otolaryngological Society the following officers were elected: Dr. John F. Barnhill, president; Dr. W. L. Molt, vice-president; and Dr. R. E. Repass, secretary. It was decided that monthly meetings would be held in the future instead of bi-monthly meetings, as during the past year.

THE first meeting of the year of the Methodist Hospital Clinical Research Society, of Indianapolis, was held October 3rd, 1924, at the hospital. The following officers were elected: Dr. Charles Sowders, president; Dr. Charles Cabalzer, vice-president; Dr. Marie B. Kast, secretary-treasurer. The following members were elected to the executive committee: Dr. E. E. Padgett and Dr. Charles Humes, to succeed Drs. David Ross and Cabalzer.

THE International Clinic of Oto-Rhino-Laryngology and Facio-Maxillary Surgery has announced graduate instruction for 1925 at the St. Louis Hospital, Paris. Instruction in Oto-Rhino-Laryngology will be given from January 15th to May 15th, and instruction in Facio-Maxillary Surgery will be given from May 15th to June 30th. The secretary-treasurer of the organization is Jeanne Gobreau, 120 Avenue Victor Hugo, Paris, xvi.

THE Seventh District Medical Society held a meeting at Martinsville, October 20, 1924. The following papers were presented: President's address, by Dr. A. L. Marshall; Physical and X-Ray Diagnosis of Some Cardiac Lesions, by Drs. R. H. Egbert and R. W. Terhune; Obstetrics as a Specialty, by Dr. A. W. Mendenhall; Preliminary Report on a New Diagnostic Blood Test for Tuberculosis, by Dr. Alfred Henry; Some Observations Concerning Hypertension, by Dr. J. O. Ritchey. Dr. Robert H. Egbert was elected president of the Society and Dr. Bernard J. Larkin was made secretary-treasurer.

IN addition to the articles already enumerated, the following have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association:

Battle Creek Food Company:
Lacto-Dextrin.

Eli Lilly and Company:
Pituitary Extract-Lilly (Obstetrical);
Pituitary Extract-Lilly (Obstetrical), 0.5 Cc.
Pituitary Extract-Lilly (Obstetrical), 1 Cc.
Pituitary Extract-Lilly (Surgical);
Pituitary Extract-Lilly (Surgical), 1 Cc.

Medical Laboratories, Inc.:
Culture Bacillus Acidophilus-Medical Laboratories, Inc.

Merck and Company:
Barbital-Merck;
Barbital Sodium-Merck;
Carbon Tetrachloride-Merck Highest Purity "C. P."

H. K. Mulford Company:
Cargentos Capsules, 3 grains;
Cargentos Ointment, 5 per cent.;
Diphtheria Toxin-Antitoxin Mixture, New Formula (Park Banzhaf's 0.1 L+ Dose)—Mulford.

Nutrivoid Diabetic Flour Company:
Nutrivoid Flour.

Parke, Davis and Company:
Antidysenteric Serum-P. D. and Co., 20 Cc. Syringe.

Powers-Weightman-Rosengarten Company:
Quinine Ethyl Carbonate-P.W.R.

ABSTRACTS

OBSERVATIONS ON THE DIPHTHERIA CARRIER AS AN AGENT IN THE SPREAD OF DIPHTHERIA

A study was made by F. M. Meader, Detroit (*Journal A. M. A.*, Oct. 11, 1924), of 432 cases of diphtheria. There were forty-six secondary cases, that is, patients who developed the disease within the incubation period, after exposure to a known case of diphtheria. This makes a total of 478 cases of diphtheria. Associated with the cases mentioned were 1,853 contacts, and among these contacts were 197 diphtheria carriers. Among the contacts of cases quarantined at home, the number of diphtheria carriers was greater by thirty-one than was the incidence among the contacts of diphtheria patients who went to the hospital. Associated with the 197 diphtheria carriers were 579 contacts, 265 of whom had been immunized. However, in this group of contacts were 136 primary cases of diphtheria and twenty-eight secondary cases, making a total of 164 cases of diphtheria. Subtracting 579 contacts from 1,853 was a group of 1,274 contacts among whom were no diphtheria carriers. Subtracting 164 cases of diphtheria from 478 cases gave a group of 314 cases of diphtheria. It would appear that diphtheria patients are more likely to be agents in the spread of diphtheria than are carriers, but it cannot be denied that carriers who harbor organisms capable of producing the disease may be very potent agents in the spread of infection. However, Meader believes that carriers of diphtheroids who have not been associated with clinical cases of diphtheria may be disregarded from a public health point of view.

CANCER OF THE UTERINE CERVIX, TREATED BY IRRADIATION

Harold Bailey and William P. Healy, New York (*Journal A. M. A.*, Oct. 4, 1924), discuss methods of treatment and give the results obtained in 1,024 cases of cervical cancer treated with radium. In the 1,024 cases observed there were fifty-four in which the cancer was too extensive for full treatment of the lesion, and these cases received only partial irradiation, usually with the roentgen ray alone. Therefore, in only 970 cases was a definite effort made to cause complete regression of the lesion or to check its advance by the use of radium and the roentgen ray in heavy dosage. During 1915, 1916 and 1917, there were ninety-three cases of primary cervical cancer, early, borderline and advanced groups under treatment. Only four of these patients are alive today. In the second interval of three years, 266 patients with primary cancer of the cervix in various stages of development were treated, and forty-two, or 15.8 per cent, of these are alive. In the primary advanced group, during this second three-year period, there were 202 patients, of whom twenty-five, or 12.3 per cent, are alive, and all of the cases in this group were entirely hopeless from the standpoint of surgery when the patients applied for treatment, and presumably the patients had but a short time to live. The primary borderline group contained thirty-nine patients, and of these eight, or 20 per cent, are alive. The primary early group contained twenty-five patients, of whom nine, or 36 per cent, are alive. These results were obtained without any primary mortality from the treatment. In the last three-year interval, i. e., 1921, 1922 and 1923, there have been 335 patients with primary cervical cancer, of whom 169, or 50.4 per cent are alive. During 1922 and 1923 the authors have been using the roentgen ray, instead of radium for external irradiation. Of the recurrent cervical cancer cases in the first period, 1915, 1916 and 1917, before present technic was developed, fifty-three patients were treated, and only one of them is alive, whereas in the second three-year interval, after the adoption of the cross fire technic and the embedding of bare tubes containing unfiltered emanation at the site of the accessible recurrences, 115 patients were treated, and twenty-two, or 19.1 per cent are still alive. In the final three-year period, seventy-eight patients were under observation, and forty-two, or 54 per cent are alive. The authors feel that a study of these statistics emphasizes three points in regard to radiation therapy in carcinoma of the cervix: 1. Radium and the roentgen ray are of extreme value in cases of advanced cancer of the cervix in checking the progress of the disease and relieving distressing symptoms. 2. Patients with recurrent cancer of the cervix can be greatly benefited by ray therapy, if seen before the lesion is too extensive. 3. Prompt post-operative irradiation is imperative, and to neglect it would seem to be inexcusable.

FURTHER STUDIES ON THE ACTION OF BOTULINUS TOXIN

The work reported on by C. W. Edmunds and George F. Keiper, Jr., Ann Arbor, Mich. (*Journal A. M. A.*, August 16, 1924), has been mainly along two lines: To explain more fully some of the symptoms of the intoxication; and to investigate some of the therapeutic possibilities suggested by the results of the physiologic work. Experiments were carried out on frogs, pigeons and dogs. As to the condition of the vagus, the evidence is that the vagus, in common with the oculomotor and chorda tympani nerves, probably undergoes some stimulation before the stage of partial or complete paralysis appears. Whether the parasympathetics are stimulated before paralysis is harder to answer. Certainly it is the case with the chorda, possibly with the motor oculi, and probably with the vagus. All the essential symptoms of botulism can be explained by an incomplete curare-like paralysis of the endings of the motor nerves to the voluntary muscles, in-

cluding the diaphragm, and by a more or less complete paralysis of the parasympathetic nerve endings. The paralysis of the parasympathetics is preceded by a stage of stimulation. The administration of morphin will delay the course of the intoxication, allowing a longer time for antitoxin to exert its effects. Additional time may be secured, if necessary, by the use of artificial respiration. It is very important that antitoxin be administered as early in the course of the disease as is possible.

AMOUNT OF BLOOD LOST DURING SOME OF THE MORE COMMON OPERATIONS

The amount of blood lost in a series of operations has been determined by W. D. Gatch and W. D. Little, Indianapolis (*Journal A. M. A.*, Oct. 4, 1924). Colorimetric means were employed. To test the accuracy of the method, some preliminary experiments on animals were carried out. In these it was determined how accurately a known loss of blood could be estimated. Thirty estimations have been carried out. A consideration of the results is extremely instructive. They show that the loss of blood in ordinary laparotomies is insignificant. Even in radical gastrectomy for carcinoma, the loss was only 232 c.c. They also show that in operations other than laparotomies, the loss is much greater. In a case of laminectomy for fracture of the spine in which 672 c.c. was lost, a large part of the blood was already extravasated at the site of injury. In a case of radical excision of the breast, pectoral muscles and axillary glands for carcinoma, 710 c.c. was lost. This case shows the very considerable loss of blood that may be masked by the use of gauze packs instead of being stopped by them. These results show also that a patient in fairly good physical condition may lose from 600 to 700 c.c. of blood without any apparent harmful effect on the general condition or the postoperative course. An adult in good health does not manifest serious effects from hemorrhage until the amount of blood lost is between 800 and 1,000 c.c. It would seem that when a patient requires a transfusion because of hemorrhage or anemia, the amount of blood given to be of much benefit should be rather large—at least 600 or 700 c.c. In desperate cases to save lives, two donors should be used and from 1,200 to 1,500 c.c. of blood given. Occasionally it may be wise to give even more than this—say from 2,500 to 3,000 c.c. in the purpuras or conditions with bleeding tendency. Operative or traumatic hemorrhage will probably be fatal before indication for such large amounts would arise.

THE APPENDIX IN RELATION TO OR AS THE CAUSE OF OTHER ABDOMINAL DISEASES

Charles H. Mayo, Rochester, Minn. (*Journal A. M. A.*, August 23, 1924), is convinced that the appendix undoubtedly is the source of chronic infection in the upper abdomen, and, as a rule, should be examined and removed during operation on the gallbladder or on ulcers of the stomach or duodenum. If, in examination of the abdomen before operation for pathologic conditions other than appendicitis, the appendix is found to be much more seriously diseased than the symptoms had indicated, or if in operations on the chronic diseased appendix the condition is found to be much more extensive and serious than was expected from the symptoms, the appendix should be considered a possible focus of disease involving the upper abdomen, and the exploration should be extended to this region by increasing the length of the incision, which is possible if it is a right median rectus incision. So far as the patient is concerned, if he is chronically sick from gastric trouble with pyloric spasm, even if it is the result of reflex action from disease of the gallbladder or appendix, he is entitled to relief and the greatest degree of permanent relief is usually best attained by surgery. If operation fails to confirm supposed disease of the gallbladder or ulcers of the stomach or duodenum, the appendix should be examined, as it may be the offender.

THE EFFECT OF INTRAVENOUS INJECTIONS OF CALCIUM CHLORID ON THE KIDNEY

During the last two years, in the Mayo Clinic, patients with obstructive jaundice requiring operation have been given intravenous injections of calcium chlorid preoperatively in order to reduce their coagulation time, and to assist in the prevention of bleeding. Five cubic centimeters of a 10 percent aqueous solution of calcium chlorid has been given daily for three days, and the results—the hastening of blood coagulation, as evidenced by a lowering of blood coagulation time, and the absence of postoperative hemorrhage in jaundiced patients—have been striking. John P. Bowler and Walterman Walters, Rochester (*Journal A. M. A.*, Oct. 18, 1924), report now on their experimental work done on dogs on whom an artificial obstructive jaundice was produced by ligating the common bile duct under anesthesia and with aseptic technic. The effect of intravenous injections of calcium chlorid in various amounts on the kidney was studied, the kidneys being removed at the necropsy. With the exception of the usual changes in the kidneys accompanying obstructive jaundice, no other structural pathologic changes were found. Nor was it possible to produce deposits of calcium in the kidneys by doses ranging from 8 mg. for each kilogram of body weight to the lethal dose of 280 mg. for each kilogram of body weight in normal dogs, and of 380 mg. for each kilogram of body weight in jaundiced dogs. It was not possible to demonstrate a deleterious effect on the kidneys of any of these dogs, either clinically or pathologically.

DIAGNOSTIC ERRORS LEADING TO UNCALLED FOR APPENDECTOMY

Henry Wald Bethmann, Cincinnati (*Journal A. M. A.*, Oct. 18, 1924), collected from private practice reports of some 300 cases in which appendectomies had been performed without relief. Patients could not always furnish accurate histories. Every case in which the history was uncertain or inconclusive was rejected. This rigorous consership left only 170 cases for statistical presentation, although fifty other cases had features of practical importance. A careful analysis of the 170 cases led to the rather startling conclusion that fully two-thirds of all the patients had never been carefully studied before the operation, and the indications for any operation in at least one-third of the cases were very imperfect indeed. Not one-third of the patients had had a competent and thorough examination in the modern sense. Not that large a proportion had had an analysis of the gastric juice, any adequate observation under proper dietetic conditions or a complete roentgen-ray examination. Many were subjected to operation "on suspicion" because their digestive disturbances had resisted medical treatment and because many of them presented right iliac sensitiveness, gaseous distention or other signs or symptoms that seemed to point to the possibility of chronic appendicitis. In more than one-third of the cases the indications for an operation were quite insufficient. Of the 300 patients, thirty-five complained of serious disorders traceable to the operation itself. The commonest sequels were hernia, ileac stasis, omental and other adhesions, and neurasthenia.

PREVENTIVE MEDICINE AND THE FUTURE OF MEDICAL PRACTICE

Henry F. Hemholz, Rochester, Minn. (*Journal A. M. A.*, August 16, 1924), is of the opinion that the medical education of pediatricians in many schools has been, in a measure, incomplete, because of insufficient work in preventive pediatrics. A pediatrician without the preventive point of view is no pediatrician. The practice of pediatrics will become more and more a practice of preventive medicine. The physician's work with the sick, by his own effort, is being taken away from him. He aims to prevent disease which formerly he was called on to treat; thus his work has changed, but not disappeared. In the

measure in which he interests himself in this campaign of prevention will the public appreciate and demand his services in prevention of disease, as it has formerly done in its cure. Pediatrics is the only branch of medicine in which the physician takes special training to do general practice in an age period. The pediatrician should be a physician of broad medical training, who is also able to supervise the growth and development of the child and observe its reaction to environment. The distinguishing feature of a pediatrician, then, is his knowledge of preventive medicine. Preventive measures will grow to play an increasing part in the work of the general practitioner, and if the appreciation by the public of the service rendered by the pediatrician is any criterion, the general practice of medicine should undergo a similar development, provided the general practitioner will meet the demand of the public.

THE CASE AGAINST GASTRO-ENTEROSTOMY

At the present time, in the opinion of Donald C. Balfour, Rochester, Minn. (*Journal A. M. A.*, August 23, 1924), there is no conclusive evidence that any operation is more useful than gastro-enterostomy in cases of chronic duodenal ulcer, except in carefully selected cases. Although partial gastrectomy may be indicated in cases in which there is a persistent recurrence of the ulcer after gastro-enterostomy, since this recurrence is certainly not over 3 per cent, it would be difficult to justify partial gastrectomy in one hundred cases of nonmalignant disease in order to prevent such a small percentage of recurrence, particularly when such recurrence can be satisfactorily dealt with by secondary operation. Gastro-enterostomy is not destructive. The operation, in suitable cases, can be depended on to give excellent and permanent results in more than 90 per cent of the cases; and it has a distinct advantage over all other operations for peptic ulcer in that after the ulcer has completely healed, the anastomosis may be disconnected with ease and safety, if desired.

THE DICK TEST

Forty-seven patients with scarlet fever were tested by Wesley E. Gatewood, Iowa City (*Journal A. M. A.*, August 16, 1924), one or more times. Among these were twenty-six who were not tested until at least five days after the onset of the illness. These twenty-six gave either a faintly positive or frankly negative reaction. Ten persons, tested between the third and eighth day for the first time, gave strongly positive reactions at first; but later, tested between the twenty-fifth and twenty-eighth days they developed negative reactions. Ten were tested between the third and eighth days and gave positive tests, but were not tested later. One patient with severe scarlet fever gave a positive reaction as late as the eighteenth day. From these few data it is evident that an estimate cannot yet be made of the time required for the development of an active immunity to the streptococcus of scarlet fever. Twenty physicians and nurses were tested. Ten gave a negative history and a negative reaction. Five gave a positive history of definite scarlet fever and had entirely negative skin reactions. Four gave a negative history and had well marked positive skin reactions. One nurse, who one year ago had definite scarlet fever, gave a strongly positive test. Sixty-five junior medical students were tested. Among these, fourteen gave a history of having had scarlet fever, and thirteen gave entirely negative reactions. The fourteenth, who stated that she had had scarlet fever with extensive rash and desquamation eleven years before, gave a moderately positive reaction. There was no history of scarlet fever in fifty-one. Among these were fifteen positive reactions, twelve strongly positive and three weakly positive. Thirty-six had negative or faintly positive reactions. One student with a faintly positive intradermal test, about six weeks after the test was performed, developed a typical scarlet fever with the usual prodromal symptoms, then a typical angina, strawberry tongue, high fever, general erythematous rash and finally profuse desquamation. His skin test remained practically negative in the course of the disease.

TOXIC NEURITIS OF THE EIGHTH CRANIAL NERVE

Arthur B. Duel, New York (*Journal A. M. A.*, Oct. 11, 1924), calls attention to a few striking points in the clinical aspects of infection of one or both branches of the eighth cranial nerve by toxic products carried in the blood stream from any part of the body. Two of the cranial nerves seem particularly prone to this kind of infection, viz., the optic and the auditory. Since the eighth cranial nerve is made up of two distinct bundles—one concerned with audition, the other with equilibration—enwrapped in a common sheath, it follows that a perineuritis causes a pressure on both bundles, with a consequent loss or perversion of both functions. This has given rise to a symptom complex, consisting of vertigo (often violent enough to cause reflex nausea and vomiting), nystagmus, impairment or complete loss of hearing, and tinnitus aurium. These types of toxic neuritis, depending on the severity of the infection, may exhibit variations in severity from slight upsets in the function of one or both branches of the eighth nerve to complete loss of both. The point emphasized by Duel in this connection is that all these cases are due to the lesion of the nerve trunk, either in the neural sheath or the fibers themselves, and in no case to an exudate into the labyrinth. They should never, therefore, be called Meniere's disease in the severest types, or pseudo-Meniere's in the milder types of infection, but rather should always be looked on as varying degrees of toxic neuritis. Duel cites six cases. He says that to those who have sought an explanation for the failure to make the expected brilliant improvement in a case of evident catarrhal deafness in which marked obstruction to ventilation of the middle ear was present, when a number of similar cases had shown brilliant improvement after removal of the obstructions, the idea of concomitant impairment of the nerve by focal infection may appeal. A searching functional test in such a case might have revealed a slight decrease in absolute bone conduction, a slight diminution in the speed of the static apparatus on one or both sides or a history of slight vertigo which had hardly been thought of and had been attributed by the general practitioner to biliousness, etc., might have been brought out. To those physicians who have wondered at a sudden onset of additional deafness, accompanied by unusual and unexpected vertiginous symptoms, in a well established case of otosclerosis, investigation of focal sources of infection producing a concomitant nerve impairment may be helpful.

FOREIGN BODIES IN THE BLADDER

Sterling P. Bond, Little Rock, Arkansas (*Journal A. M. A.*, Oct. 11, 1924), removed the following articles from the bladder of a man, aged fifty-eight: From eighty to ninety nails varying from 6 to 16 penny, weighing 350 gm., 20 gm. of cobblers' nails and carpet tacks; one roofing nail; several pieces of glass, the largest of which was one-half inch in breadth and three-fourths inch in length; bits of stone; a piece of enamel from a tooth; one carpal bone of a small animal, and two three-inch screws. Two of the 12 penny nails had stone formation on the ends. The stones were about one-half inch in diameter. There were also feces, pus and partially digested fibers. From thirty to forty tacks were removed from the postero-inferior portion of the bladder just above the trigon. The patient died. In the ileum there were eight tacks which reached there through a fistula from the ileum to the bladder.

A CASE CITING AN ADDITIONAL USE FOR BELLADONNA

In the case reported by Charles Everett Haines, New Rochelle, New York (*Journal A. M. A.*, Oct. 18, 1924), belladonna not only relieved a condition diagnosed as vagotonia, but supplemented the roentgen ray in assisting at an important decision with regard to the thera-

peutics. An apparently healthy man, aged twenty-seven, came to me. The patient complained of a sense of epigastric fullness and distress beginning immediately after eating and persisting for an hour or more. The distress was not relieved by sodium bicarbonate, nor had it shown periods of remission, as pain from an ulcer tends to do. Roentgen-ray examination suggested carcinoma of the stomach. The patient was put on tincture of belladonna, 8 drops, three times a day after meals for three days, until the tongue was slightly dry and the vision a little blurred. Then another series of roentgenograms was taken. There was no suggestion of any lesion. The patient was given tincture of belladonna, 6 drops, three times a day after meals for one week, after which the dose was gradually reduced until it was discontinued at the end of one month. The patient has not had any distress during the two years since the drug was stopped.

TRUTH ABOUT MEDICINES

NEW AND NONOFFICIAL REMEDIES

MEROXYL.—A mixture containing approximately 50 percent of the sodium salt of 2,4-dihydroxy-3,5-dihydroxymercuribenzophenone-2'-sulphonic acid, with foreign matter containing ammonium 2,4-dihydroxybenzophenone-2-sulphonate, sodium acetate and water. Meroxyl is a local antiseptic and germicide proposed for use in superficial infections. It is used for wet dressings of wounds, and also for irrigation of wounds and infected bladders. Meroxyl is marketed in the form of tablets containing 0.15 Gm. Hynson, Westcott & Dunning, Baltimore.—(*Journal A. M. A.*, Oct. 4, 1924, p. 1079.)

METAPHEN.—Bisacetoxymercuri-4-nitro-2-cresol. It contains from 58 to 60 percent of mercury in organic combination. Metaphen is a germicide, more powerful than mercuric chloride and certain organic mercury compounds when tested on cultures of *Staphylococcus aureus* and *Bacillus typhosus*. It is stated to be relatively non-irritating when applied to mucous membranes or the skin, and to be without deleterious action on metallic instruments or rubber. Metaphen is proposed for use in the treatment of gonorrhea, infections of the eye, for skin sterilization and for sterilization of instruments and rubber. It is insoluble in water and for use, solutions must be prepared with the aid of sodium hydroxide. It is supplied in the form of metaphen solution 1:5,000. Abbott Laboratories, Chicago.—(*Journal A. M. A.*, Oct. 11, 1924, p. 1167.)

STERILE AMPULES MERCURY BENZOATE 2 PERCENT. 1CC.—Mercuric benzoate-N. N. R. (New and Nonofficial Remedies, 1924, p. 200, 0.02 Gm. (1/3 grain), in a solution of sodium chloride 2.5 percent, 1 Cc. Swan-Myers Co., Indianapolis.

STERILE AMPULES MERCURY SUCCINIMIDE, 0.01 Gm. (1/6 GRAIN).—Mercuric succinimide-N. N. R. (New and Nonofficial Remedies, 1924, p. 204), 0.01 Gm., in water 1 Cc. Swan-Myers Co., Indianapolis.

STERILE AMPULES MERCURY SALICYLATE, 0.065 Gm. (1 GRAIN).—Mercuric salicylate-U. S. P., 0.065 Gm.; benzo-caine-N. N. R., 0.02 Gm., in neutral vegetable oil, 1 Cc. Swan-Myers Co., Indianapolis.

STERILE AMPULES MERCURY SALICYLATE, 0.097 Gm. (1 1/2 GRAIN).—Mercuric salicylate-U. S. P., 0.097 Gm.; benzocaine-N. N. R., 0.02 Gm., in neutral vegetable oil, 1 Cc. Swan-Myers Co., Indianapolis.

STERILE AMPULES MERCURY BINODIDE, 0.01 Gm. (1/6 GRAIN) IN OIL.—Red mercuric iodide-U. S. P., 0.01 Gm., suspended in pure cottonseed oil, 1 Cc. Swan-Myers Co., Indianapolis.

CONCENTRATED TETANUS ANTITOXIN (GLOBULIN).—Tetanus antitoxin, concentrated (New and Nonofficial Remedies, 1924, p. 297), marketed in packages of one syringe containing 10,000 units; in packages of one syringe containing 20,000 units; in packages of one cylinder containing 5,000 units for intraspinal use; in pack-

ages of one cylinder containing 10,000 units with intravenous outfit. Lederle Antitoxin Laboratories, New York.

ANTIPNEUMOCOCCUS SERUM, TYPE 1.—Antipneumococcus serum (New and Nonofficial Remedies, 1924, p. 304), marketed in packages of one cylinder containing 100 Cc. with intravenous outfit; in packages of one vial containing 100 Cc. Lederle Antitoxin Laboratories, New York.

ANTISTREPTOCOCCIC SERUM, POLYVALENT.—Antistreptococcic serum (New and Nonofficial Remedies, 1924, p. 305), marketed in packages of one syringe containing 20 Cc.; in packages of three 10 Cc. vials; in packages of one vial containing 50 Cc.; in packages of one vial containing 100 Cc.; in packages of one cylinder containing 100 Cc. with intravenous outfit. Lederle Antitoxin Laboratories, New York.

ACNE VACCINE.—Acne vaccine (New and Nonofficial Remedies, 1924, p. 316), marketed in packages of four vials containing, respectively, 5, 10, 20 and 40 million killed acne bacilli; in packages of one 5 Cc. vial containing 40 million killed acne bacilli per Cc.; in packages of one 10 Cc. vial containing 40 million killed acne bacilli per Cc. Lederle Antitoxin Laboratories, New York.—(*Journal A. M. A.*, Oct. 18, 1924, p. 1245.)

STAPHYLOCOCCUS VACCINE POLYVALENT—LEDERLE.—Staphylococcus vaccine (New and Nonofficial Remedies, 1924, p. 324), marketed in packages of one 5 Cc. vial containing 800 million killed *Staphylococcus albus*, 800 million killed *Staphylococcus aureus* and 400 million killed *Staphylococcus citreus* per Cc.; in packages of one 10 Cc. vial, containing 800 million killed *Staphylococcus albus*, 800 million killed *Staphylococcus aureus* and 400 million killed *Staphylococcus citreus* per Cc. Lederle Antitoxin Laboratories, New York.

PNEUMOCOCCUS VACCINE POLYVALENT.—Pneumococcus vaccine (New and Nonofficial Remedies, 1924, p. 322), marketed in packages of one 5 Cc. vial containing 3,000 million killed pneumococci per Cc. Lederle Antitoxin Laboratories, New York.

TYPHOID VACCINE (FOR PROPHYLACTIC TREATMENT)—LEDERLE.—Typhoid vaccine (New and Nonofficial Remedies, 1924, p. 326), marketed in packages of 30 vials; in packages of one 5 Cc. vial containing 1,000 million killed typhoid bacilli per Cc.; in packages of one 20 Cc. vial containing 1,000 million killed typhoid bacilli per Cc. Lederle Antitoxin Laboratories, New York.

TYPHOID COMBINED VACCINE PROPHYLACTIC—LEDERLE.—Typhoid vaccine (New and Nonofficial Remedies, 1924, p. 326), marketed in packages of 30 vials; in packages of one 5 Cc. vial; in packages of one 20 Cc. vial. Lederle Antitoxin Laboratories, New York.—(*Journal A. M. A.*, Oct. 25, 1924, p. 1335.)

PROPAGANDA FOR REFORM

THE STANDARDIZATION OF DRUGS AMID CHANGING STANDARDS.—Medical welfare is hampered in many ways by the machinations of the quack and the health imposter; likewise by the production and distribution of products that are below standard or utterly incapable of accomplishing what the unsuspecting user, be he layman or physician, may rightfully expect of them. Much of the valuable work of the Council on Pharmacy and Chemistry of the American Medical Association consists in revision—in promoting an up-to-date attitude toward well-tested novelties in drugs, while preserving a justifiable conservatism toward the valuable contributions of the past. An illustration of the difficulties encountered is afforded by the recent experiences with cod liver oil. The product itself is no novelty, but some of its reputed virtues have been put on a more scientific basis in the last decade. The pharmacopeial standards have been found insufficient. Today it is standardized on its vitamin potency—and more recently on its antirachitic properties. Such tested cod liver oils are widely advertised and have been accepted for inclusion in New and Nonofficial Remedies by the Council on Pharmacy and Chem-

istry. Those who believe in keeping abreast of progress should, therefore, lend their enthusiastic support to agencies, such as the Council, that labor unselfishly for them.—(*Journal A. M. A.*, Oct. 4, 1924, p. 1080.)

PLURIGLANDULAR PRODUCTS OF HARROWER.—In 1919, the Council on Pharmacy and Chemistry examined a number of the products of the firm of Henry R. Harrower, Glendale, California. It found none acceptable for New and Nonofficial Remedies. An examination of the "literature" sent out by the firm during the last year shows that its business is still largely in complex mixtures such as those reported on adversely by the Council.—(*Journal A. M. A.*, Oct. 4, 1924, p. 1098.)

THE PHOTO-ACTIVITY OF SUBSTANCES CURATIVE OF RICKETS.—In addition to conspicuous changes in the composition of bones in rickets, disproportions occur in the concentration of calcium and phosphorus in the blood plasma. The chemical make-up of the latter is soon restored to a more normal character whenever effective antirachitic measures are instituted. Cod liver oil has this regulatory power in a striking degree. It is an extraordinary circumstance that a substance containing neither calcium nor phosphorus should have the power to cause the calcium or the phosphorus, as the case may be, to rise nearly to the level commonly regarded as normal. Furthermore, cod liver oil not only acts as a regulator of the calcium and phosphorus metabolism, but also permits the organism to operate with greatly increased economy. No less remarkable than the action of cod liver oil is the clearly demonstrated potency for this purpose of certain types of radiation, such as are present in direct sunlight and which emanate also from the quartz mercury vapor lamp. Because of the similarity of action of cod liver oil and radiant energy, it was predicted that a connection must exist between them. This relation has now been demonstrated. It has been shown that the chemical substances curative of rickets produce a blackening of sensitive photographic plates screened by quartz. Substances noncurative of rickets do not fog the plates. These phenomena are undoubtedly due to ultraviolet radiation. Thus oxidation appears to furnish the basis for the identical curative action of many substances and of sunlight in rickets.—(*Journal A. M. A.*, Oct. 11, 1924, p. 1169.)

NEW WILSON REMEDY CO.—Recently some physicians in Ohio received letters from the New Wilson Remedy Co., giving as its address 1042 St. Clair avenue, Cleveland, Ohio, suggesting they "become interested in getting the profits from medicines that usually go to outsiders." They were informed that it was proposed to purchase the entire formula, stock, name, etc., of the present New Wilson Remedy Co., which now sells "Wilson's Pills," formerly known as "Wilson's Pills of Life," and stated to have proven "very effective" in "Chronic Rheumatism, Lumbago, Neuralgia, Sciatica and Menstruation." "The New Wilson Remedy Company" appears to be a trade style used by one George C. McKay. McKay, it is said, is a sales agent for various concerns and his wife apparently takes care of the mail order patent medicine business. The "Company" merely has desk room at 1042 St. Clair avenue, Cleveland.—(*Journal A. M. A.*, Oct. 4, 1924, p. 1096.)

BENZYL BENZOATE AND ARTERIAL HYPERTENSION.—While the Council on Pharmacy and Chemistry recognizes the existence of honest differences of opinion on many therapeutic questions, and desires to be liberal in its attitude toward all worthy innovations, it refuses to admit claims which are neither in harmony with already accepted facts nor supported by acceptable evidence. The wisdom of this rigorous attitude has been recently demonstrated anew with respect to the widely acclaimed benzyl benzoate. The Council has insisted that its clinical use is still in the experimental stage, despite the alluring announcements of the various alleged virtues of the compound. Benzyl benzoate has, for example, been recommended and doubtless frequently prescribed for reduction of arterial hypertension. A careful clinical

study, however, shows that benzyl benzoate, if taken in 25 to 30 drop doses (20 percent alcoholic solution), has no effect on blood pressure. Furthermore, even continued therapeutic administration over a period of days produced no effect on the blood pressure of patients suffering with hypertension.—(*Journal A. M. A.*, Oct. 11, 1924, p. 1171.)

SOME "MIXED" VACCINES OF G. H. SHERMAN NOT ACCEPTED FOR N. N. R.—The Council on Pharmacy and Chemistry reports that the following "mixed" vaccines of the firm of G. H. Sherman were found to be unacceptable for New and Nonofficial Remedies: Erysipelas Vaccine No. 1, Pneumo. Mixed Vaccine No. 6, Strepto. Staph. Vaccine No. 10, Colon Bacillus Combined Vaccine (Modified Van Cott) No. 35, Friedlander Vaccine No. 36, Influenza Vaccine No. 38, Catarrhal Vaccine No. 40, Whooping Cough Mixed Vaccine No. 43. As evidence for these "mixed" vaccines the firm submitted a printed brochure: "Data on the Use of Mixed Bacterial Vaccines." Part of the data consisted chiefly of the reproduction of letters from physicians—some of them men of high standing—testifying to the value of "mixed" vaccines in various conditions. The other part of the data consisted of abstracts or reprints of articles which have appeared in medical publications. This evidence the Council found unacceptable. The evidence for the several vaccine mixtures under consideration did not establish the rationality of any of them. On the contrary, their use is bound to lead to haphazard therapy—particularly so, because the trend of the Sherman advertising which accompanies the products is toward the use of vaccine mixtures. This includes a complete line of Sherman vaccines and contains a long list of diseases with recommendations for the use of vaccines, generally referred to by numbers rather than by names descriptive of their composition.—(*Journal A. M. A.*, Oct. 11, 1924, p. 1184.)

BOTTLED SUNSHINE.—It was demonstrated recently that sunlight or the radiations of the quartz mercury vapor lamp had the property of emitting ultraviolet rays in common with well-recognized antirachitic food substances. Almost simultaneously, it was announced that irradiation of fats otherwise inactive in preventing rickets, caused them to become active and that rations which ordinarily produced wide rachitic metaphysis in the shaft-bone of rats through irradiation became antirachitic and promptly effected a rapid and complete healing of the lesion.—(*Journal A. M. A.*, Oct. 18, 1924, p. 1250.)

JACK SPRAT BREAD, ANOTHER OBESITY CURE FAKE.—This bread is put on the market by Charles Sulzer & Co., Chicago, and proclaimed by Sulzer to be "My Magical Discovery." It is said to be "rich in protein" and "unusually low in starch." It is claimed "* * * easily and pleasantly Jack Sprat restores the beauties of form and features." Analysis shows that Jack Sprat Bread has between 29 and 33 percent of starch and a total carbohydrate content of 36 to 40 percent. It seems to be a very ordinary product which is a hybrid between a gluten and a whole wheat bread. The statement that the bread is unusually low in starch content is false. It is not true, as claimed, that the obese can reduce by eating all they want, whenever they want it. The claim that "Nothing can reduce you as Jack Sprat will" is sheer quackery.—(*Journal A. M. A.*, Oct. 18, 1924, p. 1261.)

GOMENOL.—Gomenol is a volatile oil obtained from a plant related to the plant that yields oil of cajuput. It is very similar to oil of cajuput and its therapeutic properties are also like it. Gomenol comes as a proprietary from France and it is exploited under extravagant claims.—(*Journal A. M. A.*, Oct. 18, 1924, p. 1264.)

CARNRICK'S ORGANOTHERAPY.—The G. W. Carnrick Co. sends out a 253-page brochure, "Organotherapy in General Practice," which evidently is intended to promote the use of the pluriglandular products which this firm exploits. The following appears under the heading, "Insulin in Treatment:" "For the routine treatment

of diabetes of the mild or moderately developed type, extending over years, the daily or twice daily injection of an expensive product has failed to meet the requirements. Oral administration appears to be the only satisfactory method for this long-continued treatment in the home. Numerous extracts have been prepared for oral administration and have proved successful in reducing blood sugar and correcting disturbed carbohydrate metabolism. Berkeley, Wallis, Achard and others have prepared extracts which gave good results clinically and Banting and Best and Murlin have given experimental evidence of the value of such extracts by administration through the stomach. No pancreas preparation, however, has received as extensive clinical trial as Trypsogen." An insulin preparation, effective when administered orally, would be most desirable. But there is no evidence to indicate that such a preparation has been evolved. The caution still holds good: "It is desirable to give wide publicity to the current limitations of a most promising therapy, since unscrupulous vendors of drugs are already attempting to distribute the just-as-good pancreatic and antidiabetic preparations that are recommended for oral use."—(*Journal A. M. A.*, Oct. 18, 1924, p. 1264.)

ST. JAMES OIL.—For many years one Harry Ellington Brook conducted a department of medical and quasi-medical misinformation in the Sunday Magazine Section of the Los Angeles Times. Brook was a "Nature Doctor" and a chiropractor. Brook advertised in the Los Angeles Times to restore health by natural methods. He was an exponent of drugless therapy, but he was not above exploiting a "patent medicine." A fraud order recently issued by the Post Office Department against Brook and the "St. James Oil Company" brings out the fact that Brook had for years been engaged in exploiting a nostrum called "St. James Oil," at the same time that he was inveighing against all drugs in his department in the Los Angeles Times. Analysis showed the product to be 98 percent mineral oil resembling liquid petroleum and 2 percent volatile oils of eucalyptus and of lemon.—(*Journal A. M. A.*, Oct. 25, 1924, p. 1353.)

BOOK REVIEWS

GYNECOLOGY AND PELVIC SURGERY. By Rolland E. Skeel, M.D., A.M., M.S. Formerly Associate Clinical Professor of Gynecology, Western Reserve University. 281 illustrations. 674 pages. Cloth. Price \$5.50. P. Blakiston's Sons & Co., Philadelphia, 1924.

This attractive, concise and practical manual is presented in a new edition. The author has endeavored to present the important advances which have been made in Gynecology since the first edition. The references form an important and valuable feature of the book.

Dr. Skeel arranged his manual particularly for the general practitioner and he has placed special emphasis on diagnosis and treatment. We regret that he has not mentioned Sturmdorf's amputation of the cervix. He should have presented the present day methods of dealing with persistent leucorrhea—the bugbear of all general practitioners. The reviewer feels that the author should not have mentioned the cautery amputation of the cervix for malignant disease.

MODERN UROLOGY. Edited by Hugh Cabot, M.D. Dean and Professor of Surgery, University of Michigan. Two octavo volumes totaling 1572 pages. Illustrated with 686 engravings and 19 plates. Cloth, per set, \$18.00, net. New 2nd Edition. Philadelphia, 1924. Lea & Febiger.

This new edition covers the subject of urology in a series of monographs by twenty-nine distinguished American urological specialists. It has an established place as a standard reference book. Any medical man who practices urology should own these volumes.

(Continued on Adv. Page xx)



In Surgical Sutures

SATISFACTION lies in strength, sterility and uniformity of absorption, features to be attained only when the smooth or detached side of selected sheep gut is employed. Right now the price of raw material is very high. Some manufacturers are evening up things by using the mesenteric as well as the smooth portion of the intestine. None of the cardinal qualities can be guaranteed when the rough side is employed. This is obvious to the man who has studied the manufacture of catgut.

In the Armour Laboratory nothing but the smooth, straight side of the gut is put into surgical ligatures. This material is sterilized chemically and thermically at opportune stages and finally the finished suture is, after being placed in tubes, subjected to a degree of heat that means death to all spores and organisms.

The Armour Non-boilable Catgut Ligatures are as flexible as a silk cord, and are of full strength and absolute sterility.

Specify Armour's Non-boilable Catgut Ligatures. You will be satisfied.

PITUITARY LIQUID (Armour)

the Premier Product of the kind, 1 c. c. ampoules—surgical, 1/2 c. c. ampoules—obstetrical.

SUPRARENALIN SOLUTION 1:1000

Astringent and hemostatic.
Stable and non-irritating.

Headquarters for the Endocrines
and other Organotherapeutics

ARMOUR AND COMPANY
CHICAGO

WALLACE-SOMERVILLE SANITARIUM

Succeeding the Petty & Wallace Sanitarium

MEMPHIS, TENN.

WALTER R. WALLACE, M.D.
WILLIAM G. SOMERVILLE, M.D.

FOR THE TREATMENT OF

**DRUG ADDICTIONS, ALCOHOLISM
MENTAL AND NERVOUS DISEASES**

Located in the Eastern suburbs of the city.
Sixteen acres of beautiful grounds.
All equipment for care of patients admitted.



Louisville Neuropathic Sanatorium

INCORPORATED

1412 South Sixth Street, Louisville, Kentucky

An ethical institution with modern equipment for the care and treatment of Mental and Nervous Diseases. Situated in residence portion of the city, yet quiet and retired. Rates furnished upon request.

W. E. GARDNER, A.B., M.D.

Medical Director

W. E. RENDER, M.D.

Resident Physician



BOOK REVIEWS

(Continued from page 402)

The "Historical Sketch of Genito-Urinary Surgery in America" by F. S. Watson is missed from this edition. The arrangement of the subject remains practically unchanged. It is interesting to note that under the treatment of gonorrhea a page is devoted to acriflavine, but no mention is made of mercurochrome—in fact, this popular genito-urinary antiseptic is not even mentioned in the index. Figure 208 is labeled "Ectopic testes" when it should read "Synorchism," this same error being found in the first edition. Granuloma Inguinale receives adequate consideration as well as a splendid colored photograph. Gardner presents the topic "Prostatic Obstructions" and condemns the use of the inlaying catheter while the editor, in a foot-note, states that it is used with "excellent results." Cabot, in the chapter on "Stone in the Bladder," insists that litholapaxy is superior to suprapubic cystotomy. Horace Binney, while discussing the pathogenesis of hypernephroma, states that "the majority of surgeons and pathologists today accept Grawitz's views as unrefuted." This statement might be questioned.

THE HUMAN TESTIS. Its Gross Anatomy, Histology, Physiology, Pathology, with Particular Reference to Its Endocrinology, Aberrations of Function and Correlation to Other Endocrines, as Well as the Treatment of Diseases of the Testes and Studies in Testicular Transplantation and the Effects of the Testicular Secretions on the Organism. By Max Thorek, M.D., Surgeon-in-Chief, American Hospital. Cloth. Price \$7.50. Pp. 548, with 308 illustrations. Philadelphia: J. B. Lippincott Company, 1924.

This volume is the result of an enormous amount of work and study by Dr. Thorek and he deserves great credit for the production of this monograph. The most important part of the book deals with the endocrinology of the testis, the author presenting a critical review of the literature of this topic as well as the results of his own personal investigations. The book consists of thirty-four chapters, the last ten chapters dealing with such topics as diseases of the scrotum, varicocele and hydrocele, and could have been omitted without greatly impairing the value of the monograph. They present in an ordinary manner subjects which are fully presented in all text books of surgery. The chapters dealing with testicular secretions, pathology of the testicle and dystrophias deserve particular commendation as the information contained in these chapters cannot be found in any other

one volume. The author is very cautious in estimating the value of Steinach's procedure; he opposes the use of the term "rejuvenation," but states that "some good results are reported from some quarters." In discussing sex gland transplantation he writes: "For transplants to be successful they must come from a member of the human family or its nearest biologic relations, the higher apes." He feels that "the implantation of testicular substance is absolutely contraindicated, where the physician cannot find a distinct indication for such procedure," but he gives a list of twelve "indications" including the "male climacteric," premature senility, sexual neurasthenia, the psychosis of puberty, certain cases of impotency, sexual asthenia from excesses and "all cases of testicular dystrophy and malfunction from any cause." Most men past middle age would qualify for some of these indications! The author's technique for transplantation embraces a general anesthetic, the snipping away of small pieces of tunica albuginea and the deposition of the prepared testicle, without any sutures whatever, in the retrorenal space.

The reviewer advises all medical men to add this book to their libraries.

GERIATRICS. A Treatise on the Prevention and Treatment of Diseases of Old Age and the Care of the Aged. By Malford W. Thewlis, M.D. With an Introduction by A. Jacobi, M.D., LL.D., and I. L. Nasher, M.D. Second edition. Cloth. Price \$4.50. Pp. 401, with 24 illustrations. St. Louis: C. V. Mosby Company, 1924.

The text has been revised and several chapters have been added to the first edition. The book should be read by all medical practitioners as the maladies of advanced age have not been taught or studied to their full merit. The book is presented in a sort of rambling manner, due, no doubt, to the fact that many of the articles have appeared in the *Medical Review of Reviews*, *The American Journal of Clinical Medicine* and elsewhere. The author points out that "Geriatrics is based upon three fundamental principles: (1) that senility is a physiologic entity like childhood and not a pathologic state of maturity; (2) that disease in senility is a pathologic condition in a normally degenerating organ or tissue and not a disease such as we find in maturity; (3) that the object of treatment in senility should be to restore the diseased organ or tissue to the state normal to senility and not a restoration to the condition normal in maturity." Chapter xxxii, which discusses opotherapy, reminds one of the advertising matter of the organ extract manufacturing concerns. The book has much to recommend it.

Indiana State Medical Association

(Continued from Adv. Page 444)

ENTERTAINMENT COMMITTEE—John R. Newcomb, Indianapolis, Chairman; A. L. Marshall, Indianapolis; Ernest Rupel, Indianapolis; John Sluss, Indianapolis.

FINANCE COMMITTEE—Alfred Henry, Indianapolis, Chairman; Harry Langdon, Indianapolis; E. E. Padgett, Indianapolis; W. W. Garshwiler, Indianapolis; Robert Moore, Indianapolis.

HOTEL AND HOUSING COMMITTEE—A. E. Guedel, Indianapolis, Chairman; LaRue Carter, Indianapolis; A. B. Graham, Indianapolis; C. R. Strickland, Indianapolis.

GOLF COMMITTEE—W. S. Tomlin, Indianapolis, Chairman; H. H. Wheeler, Indianapolis; Goethe Link, Indianapolis; Thos. L. Sullivan, Jr., Indianapolis.

PUBLICITY COMMITTEE—Thos V. Keene, Indianapolis, Chairman; Norman Jobes, Indianapolis; J. H. Taylor, Indianapolis; Thos. J. Beasley, Indianapolis; C. S. Goar, Indianapolis.

MEETING PLACE COMMITTEE—Charles N. Combs, Terre Haute, Chairman; Wm. A. Doeppers, Indianapolis.

RECEPTION COMMITTEE—All members of Indianapolis Medical Society.

MILITARY COMMITTEE—J. R. Eastman, Indianapolis, Chairman; LaRue D. Carter, Indianapolis; W. M. Stout, Newcastle; Charles N. Combs, Terre Haute; Carl Habich, Indianapolis; R. G. Hendircks, Indianapolis; J. S. Robison, Winchester.

BUREAU OF PUBLICITY—W. N. Wishard, Indianapolis, Chairman; F. W. Cregor, Indianapolis, Secretary; David Ross, Indianapolis; J. H. Stygall, Executive Secretary.

ADVISORY BOARD TO BUREAU OF PUBLICITY—(Appointed by Council)—S. E. Earp, President Indiana State Medical Association; E. M. Shanklin, Chairman of the Council; A. E. Bulson, Jr., Editor Journal of the Indiana State Medical Association.

THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

ISSUED MONTHLY under Direction of the Council

ALBERT E. BULSON, Jr., B.S., M.D., Editor and Manager

OFFICE OF PUBLICATION: 406 West Berry Street, FORT WAYNE, INDIANA

VOLUME XVII

DECEMBER, 1924

NUMBER 12

ORIGINAL ARTICLES

A PRESENT UNDERSTANDING OF TUBERCULOSIS*

EDWARD JACKSON, M.D.
DENVER, COLORADO

Scientific medicine deals with causes of disease, studies its natural history, seeks to understand the internal defenses of the body, evolved in a contest that has gone on through untold generations, and devotes its resources to arousing, intensifying and supplementing those natural defenses. Its characteristics are exact knowledge, absolute reverence for the truth, determination to remove the causes of disease, reliance on the processes of nature and readiness to work with and through them in every way.

For tuberculosis, scientific medicine began with the recognition of the tubercle bacillus. Isolated facts had been observed before, but with them were intermingled in utter confusion misapprehensions, old theories, fancies that attempted to bridge the gaps which separated the things we really knew, speculations instead of knowledge of causes. The recognition of a specific cause for tuberculosis gave us a test for the classification of the disease, brought all manifestations arising from the presence of that organism in the body into close association and sharply separated them from all other pathologic phenomena.

With the discovery of the bacillus, and the exact understanding of the pathologic histology that went with it, the determination of what lesions must and what must not be regarded as tuberculosis, became possible. We were able to group these lesions together, to survey the pathology of tuberculosis in its entirety, to learn with certainty what was and what was not tuberculosis; to place the isolated facts, observed before that, in their proper relations to each other, to the common etiologic factor and to the new knowledge that rapidly developed.

But learning, tradition, impressions, philosophic conceptions are not changed in an instant. The mental attitude, the studiously amassed observations, the impressions that had long dominated our

theory and practice regarding this disease could not be swept away by a single observation, however important and convincing; they remained and still remain as barriers to our seeing, as obstacles to our correct apprehension. They hinder the accurate weighing of the new observations as against the old. It is worth while, by the critical consideration of some of our obsolete beliefs, to clear the way for a better understanding of the facts that have now been made accessible to us.

Even when we had learned that tuberculosis depended upon a specific organism; when we had produced it by inoculation and knew it was a transmissible disease, our conception of it was vitiated by what we had previously known of contagious diseases. Smallpox, measles, cholera were transmissible diseases, spread by personal contact, opposed by quarantine. Why should not tuberculosis be opposed by similar measures? When we do not know the specific cause, or its special method of transmission, we are still thrown back on the method of isolation and quarantine. Witness the epidemic of "hoof and mouth disease" in California in the past year. There quarantines were established, even automobiles had to be disinfected, state troops were called out to guard the borders, governors exchanged belligerent messages; and unfortunate tourists suffered many of the inconveniences, and some of the dangers, of war.

It was natural that when tuberculosis was found to be contagious the idea at once arose of guarding the public health by such measures; and the idea of limiting the extension of the "great white plague" by quarantine and isolation has often dominated the attitude of health authorities with regard to tuberculosis, to the extent of inhumanity and restriction very harmful to sufferers from consumption.

On the other hand, the idea of tuberculosis as a reason for isolation and ostracism has been responsible for failure to recognize many of its manifestations, has made the medical profession less willing to make that diagnosis in the classes of cases in which early diagnosis was most important, has caused the physician to take refuge in the absence of family history, of a certain physical state called the tuberculous diathesis, the

*Presented before the Indiana State Medical Association at the Indianapolis Session, September, 1924.

absence of symptoms in organs that hitherto have been first thought of in connection with tuberculosis, as the lungs, the lymph nodes, or the osseous system; and so fail to recognize and properly treat the disease.

Focal Infections. We have long had definite conceptions of acute and chronic infections, but to these has been added of late years one of "focal infections." The older ideas referred to the presence of a pathogenic agent diffused and operating throughout the body. Pyemia, the acute contagious fevers, and general miliary tuberculosis are general infections. Purulent accumulations in the tonsils, or about the roots of the teeth, in the nasal sinuses, the appendix, the prostate, are instances of focal infections.

In a focal infection the pathogenic organism is established in some part of the body, there retaining its virulence, while other parts remain free from its presence, or its effects. Tuberculosis may be either a general or a focal infection. Our better understanding of it in the latter role is one of the great advances in the more recent knowledge of tuberculosis.

The existence of a focus of infection may pass wholly unrecognized until it is carefully searched for, when symptoms arising in some other part of the body bring the patient to the physician; and his knowledge of the possible effects of focal infections and his mental alertness with regard to them starts a systematic search for such an etiologic factor. A person gets "rheumatism," or is found to have a high blood pressure, or presents an acute iritis; and the x-ray picture shows absorption of bone around the roots of certain teeth, that the dentist pronounces "dead," but which have never before been suspected, or have given their possessor the slightest discomfort.

We have learned, of late years, that the accumulation of pus around the roots of those teeth is often the essential etiologic factor of the "rheumatism," or high blood pressure, or the iritis. That the focus of infection, that developed without causing any symptoms that attracted the patient's attention, is really an underlying cause for symptoms; that now call most urgently for relief. If the periodic "health examinations" which we are now asked to urge upon our patients are to prove the public benefit, and the advance in scientific medicine that it is hoped they will be, they must include a thorough search for the evidences of focal infections.

How thorough such a search would need to be is illustrated by this case of unrecognized tuberculosis. A young dentist in apparently excellent health, well nourished, accustomed to active exercise, was carefully examined for life insurance and found to be an excellent risk. Within a month he had a rather severe pulmonary hemorrhage. He was placed in a hospital for careful study of his case. No physical signs of pulmon-

ary disease could be found. The x-ray examination, directed to the chest, showed nothing. He developed an acute pneumonia and died of it. The autopsy showed, deep in the substance of the lung, a single focus of tuberculous infection. The whole mass was not larger than the end of one's finger. But the careful microscopic investigation of it showed that it had run through the various stages of a tuberculous lesion, to breaking down, discharge of the abscess, and ulceration of a rather large vessel, causing hemorrhage.

Tuberculosis and Hemorrhage. It was formerly believed that spitting blood was an early symptom of tuberculosis. In the retina we can see the whole course of the tuberculous lesion, and know that the destruction of a vessel wall which causes hemorrhage is a late effect of the disease. Some acute infections, involving the retina, cause many minute, scattered hemorrhages in the first days or hours of the attack. But in tuberculosis nothing of this kind occurs. The developing tubercles may be found along the vessels, as rounded yellowish spots of exudate, to be followed many days or weeks later by marked dilatation of parts of the retinal veins. Then comes the period of rupture of these veins and relatively large hemorrhages.

Sometimes such a hemorrhage will fill the vitreous with blood, obscuring the whole background of the eye. Often it is the first thing to call attention to the existence of the ocular disease. But in some cases the hemorrhages are smaller; they never wholly shut off the view of the retina, and the course of the retinal lesions can be watched. Some of the hemorrhages, here seen, are completely absorbed; but more often they end in the development of white, fibrous scar tissue, in which new formed vessels are present and at first rather numerous. The retinal cases show that at first the blood vessels are but little affected by tuberculosis. Later they are likely to show marked activity in the process of repair. At first there is no inflammatory hyperemia excited, to oppose the process of tubercle formation. Only when the tubercle has gone on to cell necrosis, and generally to rupture of the vessel wall, do signs of vascular activity appear. It is one of the dangers of tuberculosis that vascular reaction comes late. And in the retina, although the tuberculous lesions may be replaced by scar tissue, their presence means permanent loss of sight.

In the choroid the course of the lesions is different, especially with reference to hemorrhage. A few years after the ophthalmoscope came into clinical use, tubercles in the choroid were recognized in generalized miliary tuberculosis, especially where this involved tuberculous meningitis. Such tubercles of the choroid were the first noticed of tuberculous lesions of the eye. But they appear usually a very few days before death and are never attended with hemorrhage.

Later tuberculosis of the choroid was produced experimentally in rabbits, and these lesions run a much more protracted course. Generally in a few months the animal, injected with living bacilli, died of a generalized tuberculosis. My associate, Dr. Finnoff, developed a technic for injecting the bacilli into the carotid artery and getting choroidal tuberculosis in a large proportion of experiments. When he used dead bacilli the lesions were exactly similar to those produced by living bacilli, but the animals did not die. Their choroidal lesions ran a protracted course, ending in atrophy of the affected parts of the choroid. Such atrophies had been seen occasionally in experiments with living bacilli, and in cases of human tuberculosis a large proportion of such lesions terminate in this way.

The retina has a "terminal circulation" like the brain. There are no anastomoses in the vessels, until you come down to the capillaries. On the other hand, in the choroid the large vessels anastomose more freely than in almost any other part of the body. The fact that hemorrhage does not occur in tuberculosis of the choroid may be connected with this free anastomosis and is suggestive of a part played by thrombosis in the mechanism of retinal hemorrhage.

Invasion by the Tubercle Bacillus. The question of how the tubercle bacillus gets into the body is still unanswered. The respiratory tract and the alimentary canal have both been regarded as common pathways for its entrance. The only lesions that can be regarded as primary and marking the point of entrance are the wart-like lesions of the hands that sometimes appear on those who make postmortem examinations. Certainly the lesions of the retina and the uveal tract do not mark any point of entrance. They can only arise from bacilli carried there by the blood stream. Primary lesions of lymph nodes or bones are inconceivable. Even the lesions that occur more externally, lupus of the lids, tuberculosis of the conjunctiva, cornea and sclera, begin and run a course strongly suggestive of internal or auto-infection.

The number of cases of ocular tuberculosis encountered in patients who gave no history and no other evidence of the disease, have taught the lesson that the history of such cases may be suggestive but very generally is not. An attempt to elicit evidence of some preceding, or primary, lesion of the kind is a waste of effort, and a negative result may prove entirely misleading, if too much importance is attached to this phase of the case. A tuberculous focus can exist in the body, quiescent but quite able to originate active disease, for an average lifetime. Active seats of infection may be present as long. In view of this, it is neither wise nor profitable to waste time upon investigations or speculations as to where the original infection came from; and in view of the large number of people who are always carry-

ing live tubercle bacilli in their bodies, the attempt to limit or eradicate the disease by isolation, or quarantine is utterly irrational and hopeless.

Course and Prognosis. As in other fields of medicine, a better understanding of a disease and improved means of diagnosis have brought about an enormous increase in the number of recognized cases of tuberculosis. The cases thus brought to light are the mild, localized, nonmalignant cases. Those that ended fatally were recognized before, comparatively few of them escaping detection. The general recognition of non-fatal cases has completely changed the prognosis of the disease, quite apart from the improvement in prognosis due to a better understanding of its nature and the means we have for combating it. We do not have to accept the statistics of postmortems in certain European cities, to the effect that 90 to 97 percent of adults either have active tuberculous lesions, or the scars resulting from such lesions, to know that all around us in the community are enormous numbers of people who have had tuberculosis and have recovered, or will live out the usual span of life and die of other causes. This is the probable outcome of the disease in a great majority of cases.

We in Colorado are accustomed to meet among our professional colleagues, our friends, our patients, many who are known to have suffered from the peculiarly dangerous manifestation of the disease—advanced pulmonary tuberculosis; who live on with it from year to year, who get the better of it and resume active, useful lives, or who seem to have attained complete recovery.

When my friend Dr. Eskridge fell ill, it was debated among his medical advisers as to whether it was worth while to send him away from home. He could not get better and probably would not live long anyhow. He came to Colorado and added many years to his active professional life. He took up neurology and attained in it an eminence that made him the chairman of the Section of the American Medical Association before his death. Dr. Henry Sewall and Dr. J. N. Hall, both known internationally, and to many of you personally, came to Denver for tuberculosis, and are still living active lives. The former is president of our State Medical Society this year, the latter was years ago, and played a very important part in the late war, traveling many thousands of miles as consultant in medicine to base hospitals in the West. Personal knowledge of many cases of that sort is what gives foundation and emphasis to the conclusion that tuberculosis is not necessarily or generally fatal.

The course and prognosis of tuberculosis has been considered first because they powerfully influence all our procedures for diagnosis and treatment. The fatalism of the older views regarding this disease made a diagnosis of tuberculosis practically equivalent to a death sentence; and made

treatment rather unimportant. Now that tuberculosis includes, not only those cases of pulmonary consumption, meningitis and tubercular disease of the intestines that are fatal, but also the enormously greater number of other cases that recover, or carry limited and inactive lesions through the greater part of a lifetime, early diagnosis is the imperative duty of every medical adviser, and the treatment of tuberculosis is one of the largest, most varied, most rapidly advancing departments of therapeutics.

Diagnosis. Tuberculosis invades every tissue of the body. Its localized processes, limited to one or a few organs, go on for years, offer the chief opportunity for treatment, present the obscure problems that tax diagnostic skill. The symptoms are largely dependent on the particular part of the body in which the lesion is located. The condition has to be differentiated from other focal infections located in the same parts. The whole clinical picture must be passed upon by the physician who is familiar with the diseases of that organ, or locality.

The diagnostic investigation must be carried on by the tests and methods applied to the study of disease in that organ. In a word, the diagnosis of localized tuberculosis is the work of the specialist—not of a specialist in tuberculosis, but in the diseases of a particular organ, region, or system of the body; and it is a very large and important part of the work of every specialist. I cannot enter upon it in this address, nor could it be covered adequately by any one speaker. It might rightly be the subject of a symposium that could properly occupy a session, or several sessions, of any state medical society meeting.

Only a few points of the general diagnosis of tuberculosis can here be touched upon. Certain symptoms that used to be considered almost pathognomonic belong only to tuberculosis of a particular organ, such as cough, sputum, hemoptysis, colliquative diarrhoea. Emaciation, night sweats, loss of weight, indicate a cachexia that may arise from tuberculosis, or from other causes. Daily pyrexia is found in many diseases, but if long continued it may be especially suggestive of tuberculosis. Probably close observation of the temperature range, day after day, will bring out the fact that in most cases of tuberculosis it is somewhat increased; and this is true even when part of the increased range is due to a daily fall of the body temperature below the normal.

Many of the other general symptoms belong to the terminal stage of the disease, and therefore lack practical importance, except as to prognosis. Among these we find tubercles in the choroid. In the last few days of life they appear very frequently (over fifty percent) in the tuberculosis of children, and young people. They have furnished a positive differentiation between typhoid fever and acute general tuberculosis, but they generally appear too late to be practically im-

portant in this way. They may be more useful in showing the cause and nature of a meningitis.

In the laboratory the finding of the tubercle bacillus is always positive evidence of tuberculosis; but the failure to find it does not prove that the lesion is not tuberculous. This is especially true of tuberculous lesions in and about the eye. In tuberculosis of the conjunctiva the bacilli are few and may not be found at all. In deeper structures no tissue can be obtained for histologic examination. Probably, too, the apparent absence of bacilli from the tissues is often due to the fact that they do not take the Ziehl stain. Meader showed that this was the case where the bacillus was relatively less virulent. Probably a wider range of stains would show the bacillus present, or present in greater numbers than was supposed from the usual staining. Inoculation experiments and histologic structure of the lesion is more generally conclusive.

The tuberculin test is not wholly reliable. There may be failure to produce a reaction in advanced cases, where the tissues are already saturated with the toxins. The dose required to produce a reaction varies widely in different cases. The more sensitive and searching tests provoke reactions in healed tuberculosis. Still, in a large proportion of cases, such tests do throw an important light on the case. In testing for ocular tuberculosis we find the focal reaction, increased activity in the lesion under suspicion, by far the most reliable effect. This may be manifest by lowered vision, increased swelling, haziness of the media, increased hyperemia, or actual hemorrhage. Danger of permanent impairment of vision from hemorrhage makes it necessary to use the tuberculin test very cautiously in tuberculosis of the retina. In general the diagnosis should be suggested, and should rest largely on the correspondence of the local clinical picture and course to that of tuberculosis in that particular situation. That is what makes it peculiarly the work of one familiar with clinical manifestations in the particular part of the body affected.

Treatment. In the treatment of tuberculosis much may be done to get the best healing and best result in the local lesion by measures that are best understood by the practitioner who devotes himself to the diseases of the part involved. The tuberculous larynx must be looked after by the laryngologist; the tuberculous kidney or bladder, by the urologist; Pott's disease by the orthopedic surgeon; meningitis by the neurologist, and so throughout the list. Much that was said under the heading of diagnosis applies equally to this phase of the treatment, and need not be repeated here.

But there remains the general treatment, applicable to all cases of tuberculosis, with which you are all more or less familiar, but on certain phases

of which a little can be said bringing out individual experience and emphasis that may be helpful.

General hygienic regimen, including: outdoor living, freedom from mental and emotional stress, rest if there is pyrexia and carefully graded exercise when there is not; good diet, forced only so far as the patient is enabled to assimilate well the food he takes. This hygienic regimen is to be learned (often by residence in a sanitarium) and is to become the patient's rule of life.

The therapeutic use of tuberculin is of striking benefit in some cases in which the lesion is small and so located that its toxins are not reaching the general circulation in any considerable amount. Ocular tuberculosis rather frequently furnishes such cases.

Treatment of coincident general or local diseases should be carried to the point of putting the patient in the best possible general condition in every way. If these measures are taken with the best local treatment, the majority of tuberculous lesions will be relatively or absolutely cured.

DISCUSSION

DR. GARDNER C. JOHNSON (Evansville): Our present ideas about tuberculosis have changed much from twenty years ago. At the present time we believe that infection occurs in nearly all cases in childhood, and that the disease occurs in most cases in adult life. There are exceptions to both of these statements.

Our ideas about the danger of spreading the disease have changed much in twenty years. Twenty years ago we had a good deal of so-called phthisiophobia. Many people were frightened and fearful of contact with this disease. Today we know that nurses and doctors in sanitariums are in no more danger if as much as in other walks of life. We have learned much from surveys as to the exact number of people in any community who have the disease. We are able to say how many active cases there are for every death in a certain community. We hope in the next twenty or thirty years to have much more definite information as to what can be done in keeping down this death rate by open-air schools, nutrition classes and other things that we are doing to take care of the infected children. Tuberculosis is a slow disease, and any information that we obtain about it is a slow process, but we should obtain a great deal of information along this line in the next twenty-five or thirty years.

There was one statement Doctor Jackson made in regard to cases with hemorrhage—"that the general idea that this is an early symptom is not always true." Technically he is correct, but we know many cases of hemorrhage where the area of the disease is very small, although there may be a breaking down, and of course this is where hemorrhage occurs. We also know that the pe-

riod of time from the infection in childhood until the active disease may be forty or fifty years. So that our whole idea of early tuberculosis has changed. We are dropping that word "early." The National Tuberculosis Association is gradually ruling it out, because the time limit has nothing to do with the extent of the disease. We may have what was formerly called an early tuberculosis that is forty years old; or we may have an advanced tuberculosis that is three months old. So we are using the word "minimal" or "incipient," minimal being the best.

In regard to the treatment, of course Doctor Jackson touched considerably upon the special phase of tuberculous infection which comes more within his line. I am speaking from the standpoint of a man who treats tuberculosis as a specialty. One or two statements he made need to be taken with some caution, especially the one regarding climate. I do not know that he meant to boost the western climate particularly, but I think we as physicians need to consider carefully the individual patients that come to us with tuberculosis in advising them what to do or where to go. I think there are too many crimes committed along this line. In our state tuberculosis association we have the slogan, "Get well in Indiana." Personally, when a patient comes to me for examination and advice I want to know a great deal about him before I advise him to go away from home. In the first place, has he money enough to live without working for a year, or can he go to an institution in the west where they will take care of him for nothing. Is he of the worrying, homesick type. We all admit that the climate in the west has ten to fifteen percent advantage over what we have in Indiana, but if a patient is of the homesick type he will not gain from it. Over and over again I have seen cases that have been sent away thoughtlessly by the physician without going into these matters, the patient borrowing two or three hundred dollars to go West, with the idea that in a month or two he could earn his living. We all know that under such conditions he has not much chance to get well, and would do much better at home among friends.

DR. EDWARD JACKSON (closing): One point with reference to the climate. I emphasized living outdoors, and I think a large part of the advantage of the climate in the West is that it is a climate favorable to living outdoors.

What Doctor Johnson has said is very true—the circumstances and temperament of the patient should be carefully considered before he is sent away from home. This fact is continuously brought to our notice in Colorado, where we see so many patients who should never have been sent there, either because they could not get proper food there, or because they had to go to work and could not get proper rest, or because

they were of the worrying temperament. So consider this before you send them West. If they are going to get the benefit of that climate they may have to remain there permanently. If they go home they may not be able to come back again.

It is also necessary to teach them that the alteration in the conditions of their living must be for the rest of their lives. The great work of the sanitarium is education. The patient is taught how to live, what he can do and what he cannot do. When he learns that he can leave the sanitarium, and if he follows instructions he can continue well; but without, no amount of treatment will permanently benefit him.

TREATMENT OF UVEAL DISEASES*

WILLIAM L. BENEDICT, M.D.

MAYO CLINIC, ROCHESTER, MINN.

Diseases of the uvea should be treated by the internist and supervised by the oculist. Such close co-operation is necessary in order that there may be a common understanding of the sources from which such diseases spring, and the pathologic process by which the clinical aspects of the disease are manifested. The oculist must view the lesions in the light of general pathologic development, and the internist must understand the delicately adjusted functions of the eye. Thus the problem of combating disease of the uvea becomes a joint one. The patient must be thoroughly examined, clinically, for a reasonable cause for the disease in all cases in which external sources can be eliminated. As uveitis is in most instances of endogenous origin and its treatment systemic, the employment of a general physician is imperative. Uveal lesions are usually located in the chorioid. Defects in the chorioid, due to lack of proper development of the eye, require no treatment. Tumors and traumatic lesions of the chorioid are obviously of interest to the oculist alone. Inflammation is evidence of systemic diseases and is amenable to treatment based on the best information that can be acquired regarding the physical status of the patient, and the most approved methods of treatment from the etiologic standpoint.

The term "chorioiditis" designates inflammation of the chorioid of the eye. As it does not produce either external evidence of inflammation, or pain, it may run its course from the beginning to the formation of a cicatrix, without external evidence of its existence, and even without the knowledge of the patient. Vision may not be disturbed unless the lesion lies near the macula and a wide area of the chorioid becomes involved, with the development of a large scotoma within the field of vision. The close proximity of the retina and the peculiar structure of that membrane make it almost inevitable that the retina should become

affected by any inflammation of the chorioid, so that if a descriptive term is to be applied to the process in the eye, it must be designated as "chorioretinitis," or "retinochoroiditis," depending on the position of the most extensive lesion, as viewed with the ophthalmoscope. The ciliary body and the iris are often affected with the chorioid, causing iridochorioiditis, or more properly, uveitis, as the entire pigmented part of the eye takes on inflammatory changes.

Such widespread inflammation of the uveal tissue is, however, accompanied by functional disturbances, and constitutes one of the most common causes of blindness. Uveitis frequently starts in the iris or ciliary body, and, because of the prominence of the changes in the iris and pupil, and the turbidity of the ocular media, the anterior location of the lesion in the chorioid may be obscured and its participation be unrecognized until the severe symptoms have abated. Uveitis more commonly follows initial inflammation in an anterior location than in the chorioid. More often the chorioid and retina alone of the coats of the eye are involved in the localized areas of inflammation. Secondly, the vitreous becomes clouded either by exudate or hemorrhage or both. It is this latter aspect of the disease that will be chiefly considered in this discussion.

The clouding of the vitreous interferes with vision in eyes affected by chorioiditis that otherwise would have clear vision for all practical purposes, and constitutes the chief reason for the patient's consultation. Moreover, vitreous opacities may precede any change in the fundus large enough to be visible with the ophthalmoscope, and should be most carefully considered by the oculist. They constitute an early sign of chorioiditis in many instances. The exudative forms of chorioiditis appear, for the most part, as foci of inflammation scattered over the chorioid; whether they are deep or superficial cannot always be determined. If recent, their appearance is as pale yellowish round dots or isolated spots. The details of the fundus become less distinct, viewed with the ophthalmoscope, due to edema and congestion of the overlying retina. They may remain as isolated foci throughout their course, and after from six to eight weeks, leave a pale thin area through which the larger chorioidal vessels appear, or by complete atrophy leave a gap or hole through which the sclera reflects a white background. Repeated attacks of the disease may multiply these rounded areas until they become confluent, or cover larger areas of the fundus with a thick white exudate which disappears very slowly under the most favorable circumstances, and which again may organize into scar tissue leading to pigmented areas in the retina surrounding the white spot in the background. Disseminated and diffuse chorioiditis rarely are found in the same eye, or even in the same person, although there is no reason why the two

*Presented before the Section on Ophthalmology and Otolaryngology of the Indiana State Medical Association, at the Indianapolis Session, September, 1924.

forms should not run concurrently, or one follow the other after a clinical interval. One attack does not provide immunity; on the contrary, an eye once affected by chorioiditis is prone to subsequent attacks until it is severely damaged or lost, unless prompt and efficient measures are taken. Another peculiar feature of chorioiditis, for which no adequate explanation is at hand, is noted in the distribution of the foci of inflammation. The periphery of the fundus may be thickly studded with white spots, which indicate the location of former foci, while the central area about the macula remains comparatively normal. In such cases, good central vision may be maintained with a concentrically contracted field. In other cases the macular region is chiefly affected, leaving the periphery of the fundus intact. Loss of central vision results, but the peripheral fields remain normal, or nearly normal. Subsequent attacks conform quite regularly to this distribution, spreading very slowly beyond the areas involved in the first attack of the disease.

The eyes of young children as well as of middle aged and old persons in either sex may be affected by all forms of chorioiditis. The lesions seem to bear no relation to systemic diseases, except that in cases of syphilis and tuberculosis, chorioidal lesions are believed to be due to the general infection. It must be borne in mind, however, that persons having syphilis or tuberculosis are subject to other infections, and probably have less resistance than persons not thus afflicted. Differential diagnosis is often difficult, and therapeutic tests are not reliable, as I shall discuss later. In healed cases of chorioiditis the etiology can seldom be determined. The scars have characteristic features to indicate the source of the infection. Tuberculosis of the chorioid produces small nodules or conglobate areas which are characteristic. The lesions seldom heal and are rarely seen except in cases of generalized or glandular tuberculosis. The treatment of tuberculous chorioiditis is not different from that of tuberculous lesions elsewhere in the body, and constitutes only a small part of the general treatment.

Hemorrhagic chorioretinitis is a chronic rather than an acute inflammation. The lesions may be located either centrally or peripherally. In central exudative chorioiditis the hemorrhages appear as small red, granular areas lying beneath the retina, obscuring the details of the macular region. In early cases the affected area may remain unchanged in size, shape and color for more than six months. Smaller hemorrhages later arise near the initial hemorrhages, and may become confluent with it, without material change in the initial hemorrhage. If the hemorrhage occurs in the macula, central vision is disturbed in proportion to the depth of the hemorrhage. There may be no edema of the retina, nor perceptible change in even the smallest of the retinal vessels.

The inflammation is not always accompanied by exudate, nor is there any pigment migration, as a rule, following the absorption of the hemorrhage. After the hemorrhage is finally absorbed, the chorioid immediately beneath is almost completely atrophied, leaving a sharply circumscribed hole through which the sclera can be seen. Recurrent hemorrhages surround this area, keeping close to the border. As the hemorrhages become large or numerous, the adjacent portions of the retina become pale and edematous. Hemorrhages appear in the deeper layers of the retina, and occasionally fine opacities enter the vitreous. However, the usual course of these cases is long, and the lesion is confined to an area not much larger than the disc. Two cases of central hemorrhagic chorioretinitis that have been treated at the Mayo Clinic within the last three years are reported.

ILLUSTRATIVE CASES

Case 1. (A439247). A man, aged fifty-nine years, was referred to the Clinic in August, 1923, because of failing vision. Eighteen years before, the patient had noticed that he was unable to read with the left eye. There were always spots on the place where he wanted to read. Three months before, he had noticed inability to read or do close work with the right eye. He complained of the words piling up on one another.

Examination disclosed in the macular area, a wide zone of dark colored hemorrhage surrounding a defect in the chorioid about one-fourth disc diameter in size. The hemorrhage was sharply circumscribed above, but faded out below. There was a slight pigment deposit around the border of the hole in the chorioid, but no other lesion in the fundus. In the left eye the macular region of the chorioid was destroyed, leaving four confluent sharply circumscribed areas with pigmented borders. A small spot of old exudate appeared in the retina above the largest chorioidal defect. There were no lesions in the peripheral portion of the fundus. Evidently the lesions in the two eyes had been similar, the attack in the right eye occurring eighteen years after that in the left. The patient had infected teeth and cholecystitis. He was under observation and treatment for seven weeks, during which time the hemorrhages first became slightly thicker and deeper, then entirely disappeared. Three months after leaving the Clinic he died from acute yellow atrophy of the liver.

Case 2. (A442292.) A man, aged forty-eight years, was referred to the Clinic in September, 1923, because of failing vision in both eyes. The vision of the left eye had always been poor; he could not remember ever having had more than light perception. Vision of the right eye had been good until two months before. His general health had been good except

for an infection of the right antrum. Soon after he first noticed failing vision, he had consulted an oculist who could find no ophthalmoscopic lesion to account for the loss of vision in the right eye, and diagnosed tobacco amblyopia. Later examinations, however, revealed small hemorrhages in the macular region of the right eye, which increased in number and size without any tendency toward absorption.

On examination at the Clinic the vision of the right eye was 6/12, and there was light perception of the left eye. Ophthalmoscopic examination of the right eye showed the media to be clear, and the nerve head normal. In the macular region there was a crescent-shaped hemorrhage, the greater curvature upward, surrounded by a few small, grayish white spots in the chorioid. The left pupil did not react to light, and no fundus reflex could be made out with the ophthalmoscope. By transillumination the globe seemed to be filled with heavy black strands and fine flocculent opacities which gave a dark red reflex. By the aid of the slit lamp, remains of the old hemorrhages could be seen in the media. The patient had chronic disease of the right antrum; several operations had been performed and free drainage afforded. The blood count, coagulation time and bleeding time were normal; the blood platelets were usually somewhat diminished in number. The hemorrhages in the right eye continued as small red, granular areas with only slight absorption for six months, during which time the patient was under observation by competent oculists in various clinics. In May, 1924, the condition of the right eye was practically unchanged from what it had been four months before. Treatment with mercury iodids, and arsphenamin was instituted, and the hemorrhages cleared away within four weeks. Vision remained with slight variations at about 6/10. The fundus remained free from hemorrhages for two months. Following an extended railway journey the hemorrhages recurred, surrounding the site of the initial lesion, produced edema of the retina in the macular region, and reduced the vision to 6/60. Repeated general examinations were made, but no further foci of infection could be found, nor was there any general physical disturbance to account for the recurrence of the hemorrhages. There were variations in light perception in the left eye, which were inferred to be due to recurrent hemorrhages. In this case there must have been an interval of forty years between the attacks in the left and the right eye, although it is quite probable that hemorrhages continued to occur in the left eye during this time.

COMMENT

There was an interval of eighteen years between the occurrence of the disease in the two eyes in

one case, and more than forty years in another. The hemorrhages were slight, exceedingly slow to absorb, and the disease remained confined to a comparatively small area in the macular region. The retina was affected only secondarily. The lesions were not accompanied by exudate, and the usual characteristic appearance of disseminated chorioiditis was not present.

Isolated foci of inflammation may occur in any portion of the chorioid, and the area of destruction varies from a small point to several disc diameters, leaving an area of atrophy of the chorioid without serious impairment of other portions of the fundus. Often, however, massive hemorrhages from the chorioid, or from the vessels of the overlying retina, flow into the vitreous and become absorbed, leaving granular detritus or long stringy opacities. If the hemorrhages recur often, or are large, organization with formation of new vessels takes place in the vitreous, leaving a permanent opacity. The hemorrhage in recent cases can be absorbed in most instances by appropriate treatment, and useful vision restored.

ILLUSTRATIVE CASES

Case 3. (A369375). A man aged forty-seven years, was referred to the Clinic August, 1921, because of blurred vision in the right eye. He had had no disturbance of vision until one month before coming to the Clinic. The vision of the right eye became blurred suddenly, and gradually grew dimmer for a week.

When the patient was seen at the Clinic, vision of the right eye was 6/60, of the left, 6/4. The cornea of the right eye was slightly hazy, the vitreous full of floating opacities, and a dull red reflex from the fundus could be seen with the ophthalmoscope, but no details of the fundus could be made out. In the lower portion of the fundus was a large area of chorioidal atrophy surrounded by a zone of pigment. In the left eye were two small round, punched-out areas of chorioidal atrophy, and one large area extending down and nasally, bordered by deep pigmentation. There were no hemorrhages in the fundus of the left eye. A general physical examination revealed badly infected tonsils and one tooth with an apical abscess. Following the removal of the infected tonsils and teeth, mercury succinimid, potassium iodid, and arsphenamin were given. Under this treatment the hemorrhage ceased, and the vision gradually returned to 6/15.

After the first six weeks of treatment, the patient returned to his home with instructions to return for subsequent treatment if the vision did not continue to improve. He returned in March, 1922. Several small hemorrhages had occurred in the fundus with new areas of chorioiditis, and pallor and swelling of the retina around the disc and macular region. No large hemorrhages, however, occurred. After

another course of arsphenamin with mercury, vision in the right eye improved to 6/6 and in the left, to 6/7.

This case is typical of the group of hemorrhagic chorioretinitis which produces the greatest amount of damage to the eyes from large areas of chorioid inflammation. It is evident that destruction of the chorioid and hemorrhages into the vitreous come in late stages of the disease. Besides degeneration of the vitreous with deposit of large numbers of opacities, there is often atrophy of the iris, so that by transillumination it appears to be as thin as a lace curtain. The pupil becomes inactive, and vision is reduced to light perception. The intra-ocular tension, in some cases, becomes lower, but in most cases remains practically normal; shrinkage of the eye is not a common sequela in this type of the disease. When the retina becomes seriously involved in the inflammation, the hemorrhage in the vitreous becomes organized, and after absorption a band or chord of connective tissue stretches from one point of the retina to another. The contraction of this band produces detachment of the retina and frequently of the chorioid. This is a late sequela of the disease, and is known as retinitis proliferans. Subsequent inflammation in the chorioid causes added bands of scar tissue which result in further contraction of the globe, phthisis bulbæ. There is marked degeneration of the entire eyeball. Function may be preserved in many eyes if the inflammation can be arrested. It is unfortunate that most cases of retinitis proliferans are seen after considerable destruction of the eyeball has occurred, but if useful vision remains in the eye, a vigorous search should be made for etiologic factors. Foci of inflammation should be removed and antisyphilitic treatment instituted.

TREATMENT

The origin of most cases of chorioiditis remains in doubt. In cases of healed chorioiditis, it is obvious that definite etiologic factors cannot be determined. In recent chorioiditis, focal infection is the most common causative agent. In the records of 100 cases of chorioiditis, chorioretinitis and retinitis proliferans, picked at random from the files of the Mayo Clinic, it was found that only one patient had evidence of tuberculosis, and one of syphilis. A report of anti-specific remedies in the treatment of diseases of the uveal tract in the Mayo Clinic was published in 1922. Further experience has strengthened the conviction that it is necessary to push the treatment vigorously and continuously to secure the best results. Mercury by inunction has, for a long time, been recommended in cases of nonsyphilitic inflammation as well as in syphilitic, but I feel reasonably satisfied that mercury combined with arsphenamin and the iodids has a marked advantage over their alternate use. The dosage and technic employed in the administration of the

drugs is important, and can profitably be repeated here.

"In the selection of arsphenamin in preparation for use in this work, we believe that neoarsphenamin may be recommended. On the other hand, on studying the effect of these drugs on tuberculids, Stokes was impressed with the fact that it was the arsenical content of the total dose rather than the type of arsphenamin which was responsible for the more lasting effects. If neoarsphenamin has been employed without satisfactory results, we believe that arsphenamin owing to its higher arsenical content, should then be given a trial.

"The dosage of arsphenamin should be moderate. If a high total dosage is desired, it should be obtained by a longer series of moderate injections, rather than a short course of larger injections. The interval between injections should be one week, the course to consist of from six to eight injections, and the initial dose of the drug not to exceed three decigrams.

"The mercurial preparation given preference is the succinimid, which should be chemically pure and which should be shown by chemical analysis to contain the proper amount of mercury. The injections of this drug should be given daily in doses of 1/6 to 1/4 gr. in 1 cc. of distilled water. The average course of such injections should range from twenty to thirty. The non-specific effect of mercury succinimid is marked, and we believe this drug to be distinctly superior in this particular to the more complex insoluble mercurials, such as mercury salicylate. The drug has been shown favorably to effect tuberculous processes in the skin, although it lacks curative qualities.

"The iodids should be administered to patients under treatment for uveitis with some caution. If there is reason to suspect the coexistence or etiologic influence of tuberculosis, great care must be exercised, and in general, the drug may be regarded as contraindicated. In cases of unknown or syphilitic etiology the iodids are important. The dose of potassium iodid by mouth should be large, ranging from thirty to 100 gr. three times a day, preferably before meals. We have also placed certain of these patients on sodium iodid intravenously, but have not been convinced that this method of administration offers distinctive advantage. The technic employed is that described by Osborne; ten per cent solution of sodium iodid in especially prepared distilled water sterilized by boiling is used. The drug must be chemically pure. The dose intravenously ranges from 50 to 150 cc. once daily."¹

It is unusual for the benefits of this treatment to become apparent before the fourth, or even the fifth week. In occasional instances the change for the better is immediate. In general, however, it is quite safe to warn patients that they must expect a brief period of greater incapacity,

which will then be followed by improvement. Uveitis occurring in conjunction with tuberculous lesions and tuberculids responds very satisfactorily to treatment for syphilis. In cases of this type mercury is less essential, and the iodids may be contraindicated so that arsphenamin alone may yield a very satisfactory result.

In advising the removal of foci of infection, it must be borne in mind that negative roentgenograms of teeth and sinuses are not evidence *per se* that infection from these areas is not playing an important part in the cause of the inflammation of the chorioid, or contributing to its chronicity. Every devitalized or tender tooth should be looked on with suspicion, particularly if periapical infection has been found around one or more of the teeth. Small buried tonsils are more frequently found to contain pus than large exposed tonsils, and should be enucleated. Careful consideration should be given to the pelvic organs. Old cervicitis and old prostatitis in adults are commonly found to be dangerous conditions which will bring about severe exacerbations of local inflammation if the tissues are broken up. The manipulation of chronically diseased organs sets free a flood of toxins or bacteria. Such secondary inflammation should be combated with autogenous vaccines, if they can be made, or by injections of raw milk and the administration of massive doses of salicylates. Experience leads me to believe that all foci should be attacked as soon as possible, regardless of the severity or the acuteness of the disease in the eye. The length of time it is necessary to treat a patient must be determined according to the progress in each case. We must look on focal infection as we have been taught to look on tuberculosis and syphilis, as systemic diseases prone to chronicity with waves of activity and quiescence, ready to become active whenever the bodily resistance is lowered. Secondary foci must always be considered as present. Removal of discoverable foci does not assure freedom from further effects. Besides local treatment of ocular inflammation, general hygienic measures should be instituted. Exercise in fresh air, sufficient rest, nourishing food and abstinence from toxic stimulants are imperative. The older conception of uveal disease as a manifestation of tuberculosis and syphilis was in keeping with the results obtained by treatment by tuberculin and mercury. Bacteriologic and serologic examination have failed to confirm the etiologic importance of these great plagues. Pathologic evidence of their existence has been disputed and is difficult to prove. It is a great comfort to the oculist to find that mercury, arsenic and the iodids are excellent internal disinfecting agents, acting favorably on infections other than tuberculosis and syphilis. The streptococcus and staphylococcus are also producers of chronic infections that yield to the same treatment.

BIBLIOGRAPHY

1. Benedict, W. L. and O'Leary, P.: The use of anti-specific remedies in the treatment of disease of the uveal tract. Tr. Pacific Coast Oto-Ophthalm. Soc., 1922. Also: Collected Papers of the Mayo Clinic, 1922, xiv, 647-655.

DISCUSSION

DR. FRANK MORRISON (Indianapolis): If the presence of one of these causes mentioned by Dr. Benedict would eliminate the other, it seems to me the problem would be solved. However, it is rare, at least in my experience, that only one exists. We generally have two or three at the same time, and then it is a matter of pure speculation as to which is causing the trouble. We may have syphilis and focal infection at the same time, for example, and we want to be able to say which was at the bottom of the trouble in a given case.

I have in mind two cases, in one of which there was every evidence of focal infection being the source of the disease. The patient had diseased teeth, tonsils and sinuses. We treated him for these with no success whatever, and then a further examination showed he had syphilis. Under anti-syphilitic treatment the cure was prompt. The same week I had a case which was just the reverse. It showed a three-plus Wasserman, but seemingly no focal infection. He was treated with iodides and mercury with no result; he got worse and worse. I had him examined by one of the leading rhinologists here, who suggested some trouble in the frontal sinuses. They were treated and immediate results followed, although we discontinued the mercury and the iodides.

I sometimes think the etiology varies with the class of patients. We have three classes of patients—those we see at the Long Hospital, who are carefully gone over with laboratory aid; those I see at my office, who do not receive careful routine laboratory examination, and those that might be called dispensary patients. I do not make laboratory examination of all patients who come to my office. The Long Hospital patients show a large proportion of syphilis; those who come to the office show more frequent focal infection, and the dispensary group shows a fair proportion of tuberculosis. I cannot explain these statistics; I merely mention them.

It is only fair to say that the fact that mercury and the iodides cure these patients is not evidence of syphilis. The doctor has pointed that out.

The treatment in our experience is largely the iodides and mercury. We have had little result from arsphenamin, and we have had no experience with foreign proteins. There is one drug that has been efficacious in my hands, and which the doctor did not mention, and that is pilocarpin, hypodermically.

DR. EDWARD JACKSON (Denver): I hope that Dr. Benedict put across the idea that the treatment for these cases of uveal and retinal inflammation is general treatment. It is to a very

minor extent local treatment. There is some general condition found in the patient, some condition referred outside of the eye, that is responsible for the inflammation in the uveal tract and in the retina. That is very generally the case; it is the rule almost without exception. That idea needs to be put across to the general practitioner. We see cases of marked uveitis and acute iritis. I think most general practitioners treat them as emergency cases, but I regret to say that most of these cases that we see that are urgent and ought to be treated as emergency cases have not been treated with reference to this idea that there is an underlying cause for inflammation in the general condition. Very often no attempt has been made to find out the underlying cause. Syphilis, if not looked for, has not been assumed, although if you go to the older textbooks that is given as the cause of the majority of cases of iritis. Tuberculosis the same way. Focal infection is a newer idea, a thing that has been better developed in the ophthalmic clinic than in other services outside of the laboratory. Laboratory work, such as that done at Rochester, is very important and has given an exact scientific basis for the inferences we draw from our clinical studies. Something of that kind should be the first thing thought of in connection with any uveal inflammation, either in the iris, or choroid, or ciliary body, and if I had to have an uveal inflammation or retinal inflammation treated either without any local treatment whatever or without general treatment, I would certainly have the local treatment omitted and have the best possible general treatment. A majority of cases get well under that kind of treatment.

There are some things in which my experience does not entirely agree with that reported in the paper. One is the frequency of a luetic cause for choroiditis and also for retinitis. I think it is rather frequent, although not in a majority of cases by any means. I think the statistics I cannot agree with are those of Brown and Irons, of Chicago, who give something like twenty to thirty per cent of cases caused by luetic infection.

With reference to what the doctor has designated antisyphilitic treatment, not necessarily for syphilis. I think there is a tendency to confuse the issue. It ought to be better understood, as is perfectly clear from our experience, that in diseases of the eye mercury and the iodides and arsphenamin are very useful in other diseases than syphilis or anything derived from syphilis, particularly mercury. It has been used longer and we have more experience from which to draw. To my mind preparations of mercury in certain forms are given without any thought as to whether there is or is not syphilis in a given case, and it is a drug that can stand on its general merits and does not have to be regarded as specific or particularly adapted to any one class of case.

One other point with regard to focal infections. Focal infections are very puzzling, and the finding of focal infection does not prove that the particular disease is due to that particular cause. As the last speaker remarked, there are many causes. I have heard pediatricians particularly speak of liking to treat children because they generally had but one disease at a time and one could make a diagnosis and treat them for that one thing and they get well. Adults either have some form of focal infection of long standing, or syphilitic infection, or tubercular infection, any one of which may be the principal cause, or it is quite possible that more than one cause has to co-operate in order to produce the condition that we are combating, and in that co-operation I cannot help feeling that a good deal of attention should be addressed to gastrointestinal disturbance—not necessarily gastrointestinal, but cases of imperfect assimilation that leave circulating in the body poisons that have to be gotten rid of before these cases get well.

Another point of focal infection is that around dead teeth—teeth that are under grave suspicion although no cavities can be found. My own experience with my own teeth has been that those I have lost have gone bad during periods of depressed general condition, and it is quite possible that when these teeth are going bad, are becoming devitalized and otherwise slightly affected, that if the general health could be improved they would not go any further, and there would be no more focal infection from that source.

DR. A. E. BULSON, JR. (Fort Wayne): I only have one thought in connection with this paper, and that concerns the etiology of uveitis. You are aware of the fact that this is a condition that comes through the circulation and affects the vascular tract of the eye. I am not prepared to believe that so many of the cases reported to Dr. Benedict are not luetic in character simply because the laboratory tests do not prove the presence of the disease in the system. I am inclined to take the stand taken by Dr. Jackson—that the reason so many of these cases do improve under antiluetic treatment is because there really is back of the condition a lues. I am inclined to take this stand particularly because in so many of my cases when the specimen of blood has come back with a negative report from a competent serologist, we have found later when the patient has been under what might be called provocative treatment, that the specimen of blood will show a positive reaction. This is one of the reasons, I believe, that the older textbooks give first place to mercurials and potassium iodide as therapy. The late Dr. Bull of New York, used to say (and Dr. Jackson is familiar with the statement) that whenever you find dustlike opacities in the vitreous you can make up your mind the patient has syphilis, and these cases are benefited by antisyphilitic treatment.

In a series of cases of iritis (and most cases of iritis are attended by inflammation of the balance of the vascular coat, namely the ciliary body and the choroid) between twenty-five and thirty per cent were definitely proven to my satisfaction as being syphilitic in character. I am satisfied that that percentage will hold in cases of uveitis, and that the reason Dr. Benedict is getting benefit from the treatment is because they are luetic.

So far as focal infections are concerned, there is no doubt that they do have an effect upon the vascular tract of the eye, and they should be sought out and removed.

DR. WILLIAM L. BENEDICT (closing): I think we will all agree that the diagnosis of syphilis is one of our most difficult problems. In cases of plainly proven syphilis, those in which we do not doubt the clinical findings, the Wassermann reaction is positive in only sixty-six and two-thirds percent. The Wassermann is occasionally reported positive in cases which later are clinically proven to be non-syphilitic.

The point which I wish to bring out is not so much whether a large number of our cases are due to syphilis. The experience of various men in various clinics differs largely because of the source from which they receive their material and the thoroughness with which the general examination is made, and the reliability of laboratory tests. It is not possible to go into the comparative value of the Wassermann or the Kolmer technique. Neither is it possible for us to compile statistics when our methods of examination are so varied. I have no more than ordinary difference of opinion with Dr. Morrison and Dr. Jackson and Dr. Bulson on that and we certainly should not argue the point. I only wish to state, as I have stated in my paper, that we know of no better intestinal antiseptic than arsphenamin. As much as ninety per cent of the arsenic that is put into arsphenamin is excreted through the intestinal tract, and if intestinal autointoxication is of any moment as a causative agent, arsphenamin will take care of it better than the iodides and mercury. It has also been proven that known syphilis yields better to the treatment if active foci of infection have been removed. It is also equally true that focal infection lesions in the presence of syphilis heal much more quickly and give less trouble if the syphilis is treated at the same time.

This treatment must be carried out by the internist. There must be very little difference of opinion between the oculist and internist as to what shall take place. The patient is the thing that must be regarded, and not our theories of the causation of the disease. If we will remember that the effects of our treatment are not to be expected until four to six weeks after we begin, we will be able to impress upon our patients at

the beginning that it is necessary for them to continue the treatment even in the face of discouraging early results.

FRACTURES*

KELLOGG SPEED, M.D.
CHICAGO

Your committee has asked me to talk to you a little while on fractures. When we consider fractures clinically, as we all have to do frequently, they very quickly divide themselves into two different kinds, fractures of the shaft of the long bones and fractures into or near the joints. There is a great deal of difference in the line of treatment of these two different kinds of fractures and the results obtained. That is about all we need to know in regard to classification.

Fractures in the shaft of the long bones are undoubtedly best treated by some sort of traction or pull. The pull may be arbitrarily sustained by splints, or it may be continuous. Continuous tractions pull on the muscles and finally pull the bone into normal alignment. There is no doubt that continuous traction is the method of choice in the treatment of most shaft fractures. There are ways of applying this traction, as you know, and I will not go into the details of that treatment. In the joints, however, we have other problems, and there we require a replacing of the fragments in position so that the axis of the joint is not interfered with. When we have a fracture near the joint that interferes with the axis of the joint, we will have functional disturbance if there is not a perfect restoration of the fragment. If the fragment is very small and does not concern the whole axis of the joint, it may be that mechanical interference will prevent the joint from moving normally. So there are certain problems in these two wide divisions that cover most of fractures, some of which are illustrated by four patients that Dr. Padgett has very kindly sent over for us this morning.

Here is a boy, injured several weeks ago, who had a fracture of both bones of the forearm. He had a shaft fracture. After some attempt at reduction, apparently the surgeon was not satisfied and so he made an incision over each forearm bone and did something. I do not know whether he put in a kangaroo tendon or what, but he closed the wound and now after several weeks the boy has this result. I am asked to look at it and say something about it. Let us look into this forearm. The boy can bring his hand to a position of normal flexion, that is to within about thirty degrees of the arm. He can extend his arm very well. We see that he can pronate his arm well, but he cannot supinate it.

*A clinical talk presented before the Indiana State Medical Association at the Indianapolis Session, September, 1924.

That brings us down to the treatment of forearm fractures, and first of all I would like to say a word about operative treatment of fractures. When is operative treatment indicated, and why? In my line of work I seldom operate on young children. I never do unless there is some extraordinary reason for it. I have laid down three indications for operative treatment on the long bones, and they are, first, in case of non-union. There I admit we frequently have to operate. When we do there is a choice of what we shall do. After all, the simplest thing is the best and that simplest thing is replacement of the fractured surfaces after freshening them and bringing the surfaces into apposition. In fracture of the femur or any other long bone where attempts to put in a foreign body such as a Lane plate or Parham band or anything that will not absorb, it is our rule not to discharge the patient until the foreign body is removed, because in a large percentage of cases the foreign body will cause trouble and lead to suppuration and have to be removed. It is better to use a splint to hold the bones together long enough for them to unite and when union has occurred take it out. However, we do not use metal splints very often, and when we do we take them out as soon as possible and get rid of them.

The second indication for operation is interference with the functional use of a limb on account of mal-union, a limb that has become distorted and is not useful and that interferes with normal function. Then corrective measures may be necessary.

The third indication is in fractures where the function of a joint is interfered with, either mechanically or by a change in the axial relationship of the joint so that the limb will not bend. These are about the only three indications I know of that will stand the real test. In children we should be very slow to do any operation on a fresh fracture and it is doubtful whether operative interference is ever indicated except possibly on the femur when there is a marked deformity that can be corrected very simply.

What has this boy gained after the operation which has been performed on him? He still has some deformity of his forearm; he has some sagging in its alignment. He has perfect elbow and wrist motion, but he has not full forearm motion in pronation and supination. These motions are very important in the process of working and making a living, especially in a boy, and the most important perhaps is supination—turning the hand over to the back. Pronation means little. So in forearm fractures of both bones of the shaft our primary interest must be to return the forearm to a position of maximum functional use, and that means in most cases one does better to put the forearm in full supination. Where we have much over-riding and still cannot get the fragments together, then we can use continuous trac-

tion on the forearm. That means confining the patient to bed and by the use of adhesive strips and weights, get a traction on the hand which pulls the forearm bones into more or less normal alignment. While the traction is in force, the hand is suspended. Sixteen to eighteen days is sufficient for that sort of treatment and then the patient is instructed to begin elbow and wrist motion, but we still must be careful about the soft union in the bone. He ought to carry his arm in a sling or he may get a secondary deformity from the bending of the soft callus.

We will now look at the next two cases. These two fractures are Colles' fractures. One hundred and ten years ago Colles described a fracture at the wrist joint which was subsequently named for him. The original article was in the *Edinburgh Medical Journal*, but has since been printed in the *British Journal of Surgery* about a year ago. Colles' article was about 1500 words long and he described this as a fracture because originally men called these things dislocations. If anyone injured a wrist a dislocation diagnosis was made. This man had a true Colles' fracture six days ago, that is, a fracture at the extreme lower end of the radius, with a humplike deformity here where the lower fragment was pushed backward and upward with a breaking off of the ulnar styloid. That is what we understand by a Colles' fracture, which is a very common fracture. The only point I wish to make here is in relation to the reduction and treatment. We all know what a silver fork deformity is, how the lower surface is pushed backward and upward and the radial side of the forearm is shortened.

What is the treatment? The treatment is reduction, and that reduction should be done immediately; the quicker it is done, the easier it is done. This man has had perfect reduction. I can see no deformity of any kind. But the reduction should be immediate, and secondly, it should be performed while the patient is under anesthesia. When your patient is suffering from pain in his wrist you cannot get a satisfactory manipulation or reduction. You may manage to reduce it in spite of his complaints, but it is far more humane and much more satisfactory to use an anesthetic. A first stage ether anesthesia, or light gas anesthesia is sufficient to overcome the pain and permit you to perform a reduction.

How do you do a reduction? There are two methods that are commonly used. We may take the hand, make traction and break up the impacted lower fragment and then swing the hand and wrist down and pull the lower fragment into position. Or if that does not work well, we can take the wrist in our right hand and pull it down and then force it down into position by the use of strong leverage on the forearm. When we perform a reduction we should think of these things: First, the silver fork deformity disappears; second, while the radial styloid is always

normally lower than the ulnar, when we have a Colles' fracture the radial styloid may be on a line with the ulnar styloid. But when we have reduced it, as in this case, we find the styloids in their normal relation to each other. Third, the rounded humplike mass on the flexor surface of the wrist disappears; fourth, the function begins to return and the patient can move his fingers and use his hand with a great deal more ease and comfort. Having reduced a Colles' fracture it normally falls into a position of flexion; it is at rest. That is a sure sign you have reduction. A moulded plaster of Paris splint is applied to the dorsum of the forearm, wrist and hand. How long do we leave it there? Four or five, possibly six days—not any more. Sometimes the splint is removed in two days, depending upon the intelligence of the patient and our control of him. The hand is then taken out and massaged and the patient is encouraged to perform active motion. Passive motions are not used. The fragment might be dislocated again, but with active motion he will not do it any harm and in ten or twelve days he will be able to take hold of a door knob and pick up small objects, and in sixteen to eighteen days he will be able to write with it and eventually he will have no great loss of function. In four weeks he will hardly know the wrist has been damaged, except that it will be thickened in the transverse axis for several weeks.

A man may have a Colles' fracture and never have it reduced and eventually obtain a really satisfactory forearm. Not long ago I saw a man who had had a Colles' fracture years before that had not been reduced and he was able to use his arm very well, but in spite of that I feel these fractures should be reduced immediately and the extent of the disability shortened. Once in a while they get too old. That is, they are healed in mal-position, and that sort of case must be subjected to operation. A callus may fill in and the axis of the wrist joint is changed. In such a case I make a very small opening over the radial side of the wrist, three-quarters of an inch long, and a chisel is driven through the bone and the wrist then manipulated as in a primary reduction. Then the Colles' fracture is treated as though it had occurred that day and the post-operative treatment is a little longer splinting, then the customary massage and early use. Such an operative reduction does away with the protuberance of the ulnar styloid, with the interference of function, and with all the other points that have been considered.

Here is a boy who has had a fracture with displacement backward and upward of the lower fragment. It is an ordinary Colles' fracture. This boy sustained a fracture just above the epiphyseal line. A large proportion of these cases in small children are epiphyseal separation, but the epiphysis may hold and the bone may fracture

above it. Apparently this boy has been operated upon. It seems almost incredible that a child with such a fracture would have to be operated upon, because even after four weeks from the time of fracture, rough manipulation under anesthesia will break up the bone and permit proper reduction. However, this bone has been operated upon and the wrist is restored almost to perfect position. In this case also active use is now indicated. The bones of a child of this age will unite in six or seven days and therefore active motion is strongly indicated.

While we use the term "Colles' fracture" in a great many lower radial fractures, it really should not be used, but we ought to speak of fracture of the radial styloid, or ulnar styloid, or whatever the particular anatomy involved is.

This next man sustained a fracture of both bones of the leg. The fracture was more or less spiral and apparently was not widely displaced. For some reason, either on account of dissatisfaction with the position or for some other reason, the doctor opened this leg by operation and applied a Parham band to hold the fragments in position. This was operated on February 25th. Since this time it has been in a splint, but we can take the leg and move it at the site of fracture where we find we still have some action. We also see swelling of the shin and anterior surface of the tibia. The probabilities are that he has a low grade infection, a low grade osteomyelitis starting in this bone, probably induced at operation by the implantation of a foreign body. Such a thing may occur without a foreign body being placed upon the bone.

Since February he has not walked on this leg. What will we do with a leg like this? First of all, the advisability of an open operation is still a question. Should we, with a fracture such as shown in that skiagram, be induced to operate early? I believe not. In my experience this part of the leg is the worst part of the body to attack by open operation. It is the worst part of the body in which to handle a fracture, although most men think the humerus is more disagreeable. What should be done with this sort of case originally? I am now trying fifty cases with three different methods. After working with fractures for several years, I admit candidly I do not know what the ideal treatment of fractures of both bones of the leg is. We are trying a series of fifty cases this way—first by simple manipulative reduction and application of a moulded plaster of Paris splint; second, by putting the patient on a fracture table and pulling the leg down and putting a circular plaster cast on; third, we are using skeletal traction. We have tried all of these methods for years, and we have failed to find that any one method has much advantage over another. Possibly with the moulded splint we may get a little more shortening than with

other methods, but that is not such a serious factor. With the traction and circular plaster of Paris splint, how will one hold such traction as one can get on the table with a 200-pound pull? One cannot hold that with a plaster of Paris cast—it is absolutely impossible. If one could, one would have as a result a gangrenous foot. Very frequently where there exists perfect reduction today after using this method, in three days the fragments have slipped back out of place. With skeletal traction one has continuous traction on the bone and gets possibly a little better reduction.

Fractures of the fibula and tibia at this site unite slowly. Why? Because that is the point of poorest blood supply. It takes seven, eight, or ten weeks to get bony union. In boys such as we had here the bone will unite in one week, but an adult like this will require eight to ten weeks to get union. We should not too early say, "He has a non-union." After three or four weeks, if we take off a splint and movement between the fragments is present put a cast on that leg. Then after eight to twelve weeks, if the patient still has a little motion at the site of fracture, I would say we are beginning to have delayed union. What will we do with that? We must stimulate the bony ends. How can we do that? The simplest way is by having the patient walk on that leg. Every time he takes a step he irritates the bony ends and in nine cases out of ten he will promote satisfactory bony union. That sort of treatment can be easily obtained by a Delbet splint. A broad band of plaster is put around the knee; another band above the ankle; and then along the sides of the leg are placed a longitudinal piece of moulded plaster of Paris, so the patient has support of that leg sufficient to enable him to walk and stimulate the bony ends. That is a very useful method to promote union following delayed union. After five or six months, if the patient still has a movable point between fragments, then we can begin to put him into the class of non-union and for a non-union we require some sort of operation—the simpler the operation, the better. Although I have used bone splints, I am coming to the point where I believe the imbedded bone splint has nothing to do with the recovery of such a case. A week ago I took out, after eighteen months, an infected bony transplant, following which there was union of the leg, but the transplant was nearly all eaten away and certainly had nothing to do with the question of union in that leg.

The point in this question of fractures is to give them plenty of time to unite. To avoid secondary deformities keep off weight bearing for four to six months, depending upon the severity of the type. When the patients do begin to bear weight build the shoe up so the sole is raised on the inner side. If we will do that our patients will walk with the foot straight

forward and will not throw the cross strain on the recently healed fracture. After nine or ten months our results are all eminently satisfactory. We are too hasty about leg fractures. It is all right in a Colles' fracture, but after a leg fracture it is six to nine months before the limb can be used with freedom.

MESENTERIC CYSTS

ROBERT A. MILLIKEN, M.D.
INDIANAPOLIS

Mesenteric cyst is a comparatively rare abdominal tumor which is, however, of sufficient frequency to demand consideration in differential diagnosis. When in 1905, Dr. O. G. Pfaff¹ reported his second case, at a meeting of the Association of Obstetricians and Gynecologists, he stated that reference had been made to about one hundred and fifty cases, since the first reference by Benevieni in 1507, which, like most of the others, was a postmortem finding. Since then Dr. Pfaff has seen two cases; Niosi in Virchow's *Archiv* reports one hundred and eighty-four.

The genesis of these cysts is unquestionably embryonal, arising from lymphatics, the intestine, the urogenital apparatus, or being teratoid in nature, explaining why many of the cases are found in the new-born or in children. By far the largest number are rather definitely of enteric origin, often being composed of all the elements of the intestinal wall. Chronicity and extreme dilation will cause atrophy of epithelial elements till we may have only a few scattered muscle fibers in the cyst wall to indicate its character. Strode and Fennel² of Honolulu have recently reported a case in a four-day-old baby, in which the cysts, two in number, had all the coats of the intestine, and they present photomicrographs showing this beautifully. Waugh³ of Winnipeg reports a case, also in a baby, in which the cyst wall contained two layers of muscle. These authors both append bibliographies which curiously contain no duplication.

The clinical picture presented by these cysts will vary with their size and position. The new-born are brought to operation chiefly because the cyst, projecting into the lumen of the gut, causes obstruction with its well-known syndrome. If the cysts lie chiefly between the mesenteric leaves, adult life may be reached before pain and an obvious tumor bring them to notice. A common clinical feature is the suddenness with which the tumor appears following a strain or exertion. This has been explained as being due to the cyst lying in the pelvis and rising on exertion to the abdominal cavity, where it can be felt. The tumors are usually very movable, fluctuant, and not tender.

The following is a case of mesenteric cyst in an adult, in which the tumor arose rapidly, but with no known strain to account for the sudden

appearance. A colored girl of nineteen years was admitted to the hospital September 21, 1923, complaining of vomiting and pain in the abdomen. She had been married and was the mother of two healthy children, the youngest a year old. There had been no menstrual irregularity, but following the birth of the youngest child, there had been a yellowish discharge, which required lysol douching for its control. Except for scrofula, as a child, her past history was irrelevant, and she denied venereal disease and the possibility of pregnancy. Her present difficulty started five weeks prior to her admission, with a throbbing pain in the right groin, radiating to her hip, and two weeks later she noticed that her stomach was swollen. There was frequent but irregular vomiting, having no relation to meals or posture. She menstruated normally during this time. She stated that she thought she was slightly smaller and less tight than she had been at first. There was no vomiting in the hospital, and her pain was dull and constant in the right lower quadrant. Her bowels moved daily.

Examination was negative except for the abdomen, which presented a visible tumor distending the lower abdomen; rising about two fingers breadth above the umbilicus. The mass was rounded, fluctuant, and slightly movable. There was no spasm. Pulse, temperature, and white count were normal. The cervix was hard, and the uterus movable independently of the mass. The adnexa and fundus could not be palpated satisfactorily. The Wassermann was positive.

Operation was performed with a pre-operative diagnosis of ovarian cyst. The omentum was found broadly adherent to the anterior abdominal wall at its edge, and since it could not be pushed aside it was torn through. A cyst was discovered in the mesentery of the terminal ileum, extending about eight inches up from the ilio-cæcal juncture. The bowel was collapsed and normal: due to the adhesion of bowels into the pelvis the uterus and adnexa could not be well examined. The cyst was about eight by six by four inches in size. It was opened through its apex on the upper surface of the mesentery, and more than a quart of clear yellow fluid evacuated. Two or three small subsidiary cysts were opened and evacuated near its base. The lining membrane was indistinguishable from peritoneum. Unfortunately, none was removed for histological study. The opening in the cyst wall was sutured to the abdominal aponeurosis and packed with plain and iodoform gauze.

Three days later, the packing was removed and a soft catheter inserted for drainage. A week later, there was slight serosanguinous drainage, and a few cubic centimeters of half strength tincture of iodine injected. Three weeks later, there was no drainage and no sign of recurrence of the cyst. Six months later, she reports that

she is perfectly well, and that there has been no recurrence.

The treatment of mesenteric cyst must always be surgical and will, of course, differ with the presence or absence of obstruction. In a case such as has been related, there are three possibilities—dissection, excision with the removal of overlying bowel, and marsupialization. Dissection might be possible in a small cyst with thick walls, but even so, the intimate relationship of the cyst wall with the mesenteric vessels would make this a precarious procedure. In the smaller cysts excision of cyst and the bowel supplied by the vessels passing in contact with the cyst is, perhaps, the method of choice. The pathology is removed beyond the possibility of return, and the amount of bowel involved will not be considerable. But even so, a bowel resection and anastomosis is to be approached reluctantly and with trepidation. In the case reported, such a procedure would have been dubious. Many feet of bowel would have been removed and it would have been necessary to invade the pelvis with its plastic remains of unknown previous pathology. Marsupialization has the advantage of escaping the shock of resection and the leaky dangers of anastomosis, but is far from assuring that there will be no more recurrence. The outcome has not made me regret my decision.

REFERENCES

1. Pfaff—A Further Consideration of Mesenteric Cysts. *Am. Jour. Ob.*, 53, No. 2, 1906.
2. Strode and Fennel—Enterocyst. *Surg. Gyn. Obs.*, 37:781.
3. Waugh—Congenital Cyst of Duodenum. *Surg. Gyn. Obs.*, 37:785.

YOUR CHICAGO HOME

BY AN INDIANA VISITOR

A tourist once bought a masterpiece of art and hid it away in his attic. This is what the medical profession of the country is doing with its splendid creation—the American Medical Association establishment—535 North Dearborn street, Chicago. Just as the purchaser of the masterpiece failed to have a true appreciation of the beauty and real value of his treasure, thus has the individual physician failed to comprehend the true significance of the A. M. A. establishment.

For the average doctor it is enough if he knows he is a member in good standing in the A. M. A. and if he is allowed to sport a resplendent A. M. A. insignia on the radiator of his automobile. But does the average doctor appreciate what the A. M. A. is really doing for him; how it is taking care of his interests in Washington, in his own state, in his own home town; what the staff of experts is accomplishing along the many lines of medical achievement? Does he appreciate what is being done in his behalf at 535 North Dearborn street, Chicago?

No, not at all!

If you want to know what it is all about; if you want to spend one of the most interesting

afternoons of your life and learn anew the high ideals and true tradition of your medical profession, just what it stands for, and what it means, make a visit to 535 North Dearborn street. When you are week-ending in Chicago this coming year, pass up the "Follies" just one afternoon and let the White Sox and Cubs battle it out alone just for one game, and take in 535 North Dearborn Street—only a short half-mile from the center of the city.

"It's such a large place—six stories high and covering more than a quarter of a block, according to the pictures I have seen of it—and it looks so formal and imposing, and I have heard they are always busy, I wonder if I really would be welcome?" you might ask hesitatingly.

Would you be welcome? Just as welcome as you are in your own home—for 535 North Dearborn Street is *your very own home*. It is the home of every member of the A. M. A. and no matter whether you have a seat in the august House of Delegates or if your only seat is behind the steering wheel of a Ford coupe, you will receive just as firm a glad hand from the heads of the departments.

From the time you receive the once-over and O.K. of Mike Jones, the elevator aviator, and are met by Dr. Olin West, secretary and general manager of the Association, way up at the top of the line, you are in for a big afternoon.

A guide is assigned you, and your two hours of sight-seeing starts. Of course you could spend all afternoon in any one department, and for that matter in almost any one room and still go away with plenty unlearned, but a two-hour trip will give you a general idea of what is going on throughout the various offices and departments—and, for that matter, throughout the medical world.

But before you get too far along; here is an S. O. S. warning. Watch your titles. The various heads of the departments are so mixed up with just plain "misters" and "professors" and "doctors," that a fellow has to be a cross between a clairvoyant and an animated memory course to keep 'em straight.

There is Mr. George J. Harris, head of the composing room (for the Association maintains its own printing and publishing establishment); Professor W. A. Puckner, and Dr. Paul N. Leech, in the chemical department; Dr. Arthur J. Cramp in the bureau of investigation, and Mr. Will C. Braun, head of the advertising department, and Mr. F. V. Cargill, whose work is mainly on the attractive new health magazine, *Hygeia*. Then there is Dr. W. C. Woodward, physician, and lawyer, too, who is more dangerous than Kipling's "soldier and sailor too,"—for the cults.

And among them is our own Hoosier, Dr. Morris Fishbein, editor of the *Journal of the A. M. A.*, the largest and best medical journal in all

the world, who in true Hoosier fashion is maintaining the standard of Indiana in medical literary production. Dr. Fishbein is a true genius in his line, acting as editor-in-chief for all the medical journals of the Association and writing for himself on the side. He had medical articles and short stories in no less than eight national magazines last month. "And we don't pay the magazines to run them either—no, siree," he said with a smile.

It is hard to pick out any department and tell about it to the exclusion of some of the others, but one of the most interesting sights in the whole building is the battery of files and card indexes in the department of medical education and hospitals which keeps track of the licensed physicians, medical college graduates, through the biographic card index, the medical students' register, and the American Medical Directory.

These card indexes and files are as intricate on first glance as a cross-word puzzle, but like cross-word "kinks" they may be worked out easily—once you get the hang of the system.

And don't think you can get away with a thing on the A. M. A.—not with these files. For they check the youngster from the time he begins to have a hunch that he wants to be a physician, on through his college course, his medical preparatory days, his internship, his practice, abroad—to the grave itself.

Although hundreds of thousands of names appear in these files, they are so catalogued that each is accessible. If you are so fortunate as to meet Miss Hattie A. Niehoff, for ten years secretary to Dr. West, she in turn will introduce you to Miss Dorothy Forsberg, who is on such good terms with these gentlemen in the various files, and has them so well trained that she merely has to whistle and out springs all the data and dope on any individual physician that you may desire.

If a physician comes into your town, and applies for membership in the County Medical Association, you can check up the newcomer's record by merely writing the A. M. A.

"If a medical student claims a certain standing in his university in applying for a position, his statements may be verified by the office records," said Miss Forsberg. "Only yesterday we caught one man who was trying to forge another physician's name and to pose as a graduate from a certain medical college. We could prove his statements and actions absolutely false. We traced him right down through the records in our office."

"The A. M. A. urges that each newcomer be thoroughly inspected before asking him to join the county medical society. Perhaps he may have been forced to leave some other section of the country because of wrong-doing—and if such is the case, you can find that fact right here in our files. Indeed, these records are so alive that the

deeds of the individual physician will live long, after the physician himself has passed from the world."

(To Be Continued)

TELL IT TO TOM

By TOM HIMSELF

The Indiana State Medical Association has an extensive constructive program to carry out. This has required the creation of a new office, that of executive secretary, and Thomas A. Hendricks, of Indianapolis, has been chosen by the Council to fill the position.

It is going to take a great deal of work and a great deal of co-operation to put the program over. It will require the active assistance and support of every individual member of the Association. In return, the Association expects to be of practical service to the members personally as well as professionally. The executive secretary's office will be the clearing house for the Association, and Tom is the one who will attempt to keep the wheels of progress moving. Therefore, if you have any constructive ideas concerning the medical profession, the Bureau of Publicity, the legislative program, organization work, *THE JOURNAL*, or any phase of medical practice, tell it to Tom, and he will see that your views are presented and that they receive due consideration.

If you have a health message for the Hoosier public, a good health story, or know of an incident which will make good reading matter or news notes, write or tell it to Tom, and he will do his best to help you get it in publication form.

If you desire medical speakers for the Rotary, Kiwanis, Lions, Optimists, parent-teacher associations, literary clubs, or lay organizations of any kind, and desire help, call upon Tom.

If you need help in securing essayists or in making up a program of meetings of medical societies, call on Tom.

If you come to Indianapolis, drop into the office, 1004 Hume Mansur Building, and see Tom. Check your luggage in Tom's office, make the office your headquarters, and a meeting place to see your friends.

If you want a game of golf, while in the city, make your wants known to Tom and he will fix you up. If you want theater tickets in Indianapolis, wire, telephone or write your wants to Tom. He will do his best to get you good seats if any can be rounded up.

In fact, no matter what you want, tell it to Tom and he will do his best to get it for you.

The program is extensive and all of it can not be given in detail, but it has for its object real service to the medical profession and the individual members thereof.

If you have any suggestions give them to Tom. He has been selected and will be paid for carrying out such programs as briefly outlined. He

is the rallying point for all Association activities, so

Tell it to Tom.

HIGH SPOTS IN THE ANNUAL NATIONAL CONFERENCE OF THE STATE MEDICAL ASSOCIATION SECRETARIES (Chicago, November 21-22, 1924.)

"We doctors have been so busy in the purely scientific side that we have neglected the social side of life."—WILLIAM D. HAGGARD, President-Elect of the American Medical Association.

"Periodic health examinations under the proper conditions are valuable, but they must be personal examinations and not indirect examinations with a clairvoyant diagnosis."—M. L. HARRIS, Chairman of the Judicial Council of the American Medical Association.

"If the indirect service of the examination and diagnosis is permitted to grow it is going to be the greatest loss to the physician and undermine the greatest asset of the profession, individualism."—DR. M. L. HARRIS, Chicago.

"You fellows spend more money in one month's country club dues, lose more money in one golf game, or put out more money for membership dues in the Masons, the K. of C., or the Ku Klux Klan, than it takes for a year's membership in your state and national medical associations and yet you howl if your medical society dues are raised for the year an amount equivalent to the price of one night's theatre ticket in order to give you more service."—A. E. BULSON, JR., Indiana, in his address before the secretaries on "What's Wrong with State and County Medical Organizations."

"The medical profession is just as good as its practitioners and not one bit better. We must help to improve the service of every individual doctor."—A. T. MCCORMACK, of Kentucky.

"From this time on the American Medical Association should have one and only one policy; the policy of benefiting that member 'way down yonder in Podunk."—DR. FRANK BILLINGS, Chicago.

THE PATHOLOGY OF OSTEOPATHY

"But, my dear, aren't these osteopaths rather—

I mean to say—intimate in their manipulations?"

"Oh, yes! I had to become engaged to him for the course of treatment!"—*Judge*.

Doctor—"You have appendicitis. I must operate."

She—"Oh, doctor, will the scar show?"

Doctor—"No—not unless you join the Follies."
—*Medical Life*.

**THE JOURNAL
of the**

Indiana State Medical Association

Devoted to the Interests of the Medical Profession of Indiana

ALBERT E. BULSON, JR., B.S., M.D., F.A.C.S.
Editor and Manager

Office of Publication, 406 W. Berry St., Fort Wayne, Ind.

DECEMBER, 1924

EDITORIALS

RHEUMATISM

At the present time when the laity is hearing so much concerning the cure of rheumatism by baths, electricity, and various forms of massage used and advertised so extensively by certain pseudomedical cults, it is well to advise our patients that every vague pain, particularly if it affects muscles or joints, is not a manifestation of rheumatism, but may be due to a variety of conditions such as flat feet, bone tuberculosis, syphilis, or infection in any portion of the body.

Rheumatism in the strict acceptance of the term means rheumatic fever, an acute febrile disease, a general infection which Rosenow claims is due to a streptococcus having a special affinity for the joints and heart. The tonsils and diseased teeth are very often the portals of entry for the infection, though there are certain predisposing factors such as exposure to cold and wet, sudden reductions in the temperature, and lowered vitality. The disease is a painful one, confines the patient to bed, and often is followed by complications, especially of the lungs and heart. As one attack predisposes to others, attention has been directed to the removal of the cause, and medical men are rather unanimous in the opinion that the removal of diseased tonsils and infected areas about the teeth will prevent a large proportion of the cases of acute rheumatic fever.

The vague pains in various portions of the body usually called rheumatism by the laity may be due to such a large variety of causes that it is necessary for a competent and painstaking physician to determine just what is wrong in order to prescribe measures that bring relief. Sometimes soreness and pains in the lower extremities will be found to be due to flat feet; the pain and disturbance of function in the joints of children, especially the hip, to be due to tuberculosis; the so-called muscular pains of neuralgia about the eye and the side of the face, sometimes is due to a bony spur or other pressure symptoms within the nose, and many of the so-called neuralgias or types of neuritis are due to toxemias arising from infected tonsils, accessory sinuses of the nose, teeth, kidneys, prostate, or for that matter any part of the body in which pyogenic organisms may be found. No amount of "adjustments," massage, medical baths, electricity, or other hit and miss treatments will cure these patients. They

may be relieved temporarily by an improvement in the nutrition and the resisting power, but they never get well until the cause has been removed, and it often requires painstaking and exhaustive examinations on the part of a well trained medical man to discover the cause and receive appropriate recommendations as to treatment to be used. It is the great army of sufferers from these vague pains, called rheumatism and neuralgia by the laity, which make up the clientele of the mechanotherapists, and medical pretenders of every stripe, to say nothing of filling our sanitariums and other institutions that make a specialty of hydrotherapy.

In our efforts to educate the public as to what constitutes rational consideration of disease conditions we ought to emphasize the importance of determining the cause and removing it if we are to give permanent relief to our patients. The success of the mechanotherapists is based largely upon the psychology of the inconsistent declaration that most if not all diseases and disturbances in the human body are due to misplaced vertebrae or pressure of some kind, and though cures are relatively few and far between many lay persons are quite willing to spend time and money in following such a will-o'-the-wisp when perhaps a thorough examination by well trained physicians would discover a cause which, upon removal, would bring about a cure.

The term rheumatism has covered a multitude of symptoms and conditions, and it is time that the laity should know that everything called rheumatism is not rheumatism but a manifestation of disordered function, the cause of which can be located if due attention is given to it, and that this attention requires something more than the superficial examination of a poorly educated and illy trained consultant whether he belongs to the regular medical profession or one of the pseudomedical cults.

SIMPLE GLAUCOMA

**NECESSITY FOR EARLY RECOGNITION AND
TREATMENT**

The frequency with which great impairment of vision and oftentimes blindness occurs from simple glaucoma, without recognition and appropriate attention on the part of attending physicians who have had an opportunity of discovering the nature of the disease and instituting proper treatment, justifies us in offering a note of protest. It is bad enough for the opticians and so-called optometrists to fail to recognize the necessity of referring these glaucoma patients to those skilled in the treatment of eye diseases, without having members of the regular medical profession guilty of the same mistake, and yet every well trained and experienced ophthalmologist constantly is encountering cases that show a lamentable ignorance on the part of some medical man as to the symptoms of simple glaucoma and the disastrous

results that invariably follow negligence in giving such cases appropriate attention.

The fact that simple glaucoma usually occurs in patients past middle age, and is unaccompanied by redness or discomfort, sometimes leads the careless observer to suspect and even to advise the patient that his vision is failing as a result of oncoming cataract. Even the beginning sclerosis of the lens which is apt to cause a faintly milky discoloration of the pupil by direct inspection, though really not materially disturbing the transparency of the lens, adds to the tendency to suspect cataract. On the other hand, there are even those physicians who pretend to use the ophthalmoscope who do not discover the beginning cupping of the optic disc, and are quite satisfied to consider the patient's eye not seriously affected if the central vision has not been disturbed, no matter what the contraction of the fields may be. Even the pupil that is dilated more than it should be in a patient of middle age when the natural tendency is for contraction, does not seem to excite suspicion, nor even the sluggishness of the pupillary action, the shallowing of the anterior chamber, and the loss of everything but central vision.

Simple glaucoma may exist for some years before it leads the patient to consult a physician. There may or may not have been premonitory symptoms, such as attacks of foggy vision and halos around lights, which with the diminished accommodation or premature presbyopia cause the patient no concern as long as central vision remains generally good. The pupils usually are a trifle larger than one would expect them to be in middle or advanced life, though it is seldom that they do not respond readily to light and accommodation. To add to the deception, the anterior chamber, upon inspection, may appear to be normal, and palpation gives a questionably negative result. Often the optician or even the family physician aids in delay in securing appropriate attention by advising the patient that all that is needed is a change of glasses. Later when the central vision begins to fail the same optician or perhaps the family physician may advise the patient that a cataract is forming and that blind-

ness must intervene before the sight can be restored. In the meantime much valuable time is lost in securing appropriate treatment.

This leads to the justifiable warning that even the prescribing of glasses for supposed beginning presbyopia should not be done in a haphazard manner, nor be left to one who is not trained in recognizing pathological conditions of the eye. It is even appropriate, in this connection, to say that the patient who consults an oculist to obtain a prescription for glasses is entitled to and should

have a careful ophthalmoscopic examination, irrespective of the state of the vision. If he gives a history of any suspicious symptoms, or there is the slightest evidence of cupping of the disc, both the tonometer and the perimeter should be used, irrespective of a presumably normal eye by palpation and inspection. That these patients with incipient simple glaucoma may be benefited by treatment and the ravages of the disease checked is proved by the results secured from treatment of thousands of patients who have had the advantage of skilled attention.

We feel that we are justified in making a plea for more critical ophthalmoscopic examinations and for more general employment of tonometer and perimeter for those patients of middle or advanced life who come to us complaining of vague symptoms which are so often attributed to a need of change of glasses or to some slight systemic derangement. The preservation of the best vision for the longest period of time for patients suffering from simple glaucoma necessitates discovery of the disease early in its progress and the prompt adoption of appropriate remedial measures.

HARRISON ANTI-NARCOTIC LAW

PENALTIES, PETTY ANNOYANCES AND FAVORITISM
IN ENFORCING THE LAW

We are inclined to be somewhat bolshevistic when we learn that one of the most prominent physicians in Philadelphia has been advised by the United States Internal Revenue Department that, on account of his failure to register removal of his office within thirty days after removal occurred, he has incurred an additional tax effective

Special Notice

All members of the Indiana State Medical Association are requested to pay their medical society dues by January 1, and all secretaries of county medical societies receiving State Association dues should file the list of paid members and make remittance for the same promptly in order to facilitate the work of transferring all of the business affairs of the Association to the executive secretary's office, as provided by a recent action of the Council. The complete address of all members, *including the street and number*, should be given upon the membership list. This is absolutely necessary in order to complete the mailing list of THE JOURNAL. Address all communications concerning membership to Dr. Chas. N. Combs, Terre Haute, Indiana.

from the first day of the month in which the removal occurred to the end of the fiscal year, and has been assessed a penalty or fine of 25 per cent. of the total tax. As has been pointed out, the Harrison Narcotic Law contains a number of petty and annoying regulations through which the medical profession is harrassed from time to time. The Act seems to regard members of the medical profession as potential miscreants who in order to be kept good must be disciplined. The medical profession endorsed the Harrison Narcotic Law because they felt that its general provisions were for the public good, but it is time for the medical profession as a whole to condemn, in no uncertain terms, the tyranny with which the provisions, so far as they pertain to the medical profession, are enforced. As an evidence that the Harrison Narcotic Law is not enforced in a fair and impartial manner, we call attention to the specific case of the refusal on the part of the United States Treasury department to prevent the sale and distribution of Tucker's Asthma Specific which declares on the label the presence of five grains of cocaine to the fluid ounce. Already cases of cocaine poisoning caused by the use of this remedy have been reported, and some states have declared that the remedy is unsalable because of its cocaine content, and yet, when the Commissioner of Internal Revenue was approached on the subject he declared that the mail order distribution of this nostrum served a great humanitarian cause and, therefore, it had been decided by the Treasury Department to take no action injuring its distribution. Irrespective of the fallacious personal opinion of the Commissioner, the reason for which we can only conjecture, the fact remains, as pointed out by the *Journal of the A. M. A.*, that the sale of the Tucker remedy seems to be an obvious violation of one of two Federal laws. If it contains no cocaine then it is misrepresented under the Federal Food and Drugs Act, because the label declares the presence of five grains of cocaine to the fluid ounce. If it contains a derivative of cocaine and the Treasury department has admitted that it does, then its sale violates the Harrison Narcotic Law. While the tender consideration shown by the Federal authorities for this nostrum is a cause for wonder, as pointed out by the *Journal of the A. M. A.*, yet it is but one of several such inconsistent and nauseating acts of inefficiency and favoritism as to disgust all people who have respect for law and order.

CHRISTIAN SCIENCE AND SMALLPOX

A true Christian Scientist does not recognize disease, not even smallpox. If he gets sick he proves that he is not a disciple of Christian Science. Every once in a while a Christian Scientist does get sick, and if he doesn't skilfully cover up his illness he is at once branded as a weak member. The epidemic of smallpox in Detroit and Buffalo and the effect on the part of Departments

of Health of those cities to stop the ravages of the disease, brought a rise from the *Christian Science Monitor* which labels all efforts of that kind as being smallpox scares intended to stimulate business for vaccinators and vaccine manufacturers. A notorious anti-vaccinationist is quoted to show that the diagnosis of smallpox can be discredited. *Health News*, published by the New York State Department of Health, in commenting on the matter, calls attention to the fact that some years ago a doctor in Boston discredited the value of vaccination and discounted the diagnosis of smallpox that had been made by the health authorities of that city. He was invited to visit the smallpox hospital and accepted. Within the period of incubation for smallpox he developed a typical case of that disease, since which time he has had little to say concerning the subject of smallpox or its control by vaccination. We sincerely believe that the best way to convince Christian Scientists and some others of the reality of disease, and particularly of such a loathsome and disfiguring disease as smallpox, is to invite those fanatics to test their faith by visiting the contagious disease hospitals. There is nothing so effective as a burned finger to make a child dread fire. Christian Science can be of wonderful benefit to the person who is apprehensive or who has imaginary troubles. It is a good cure for delusions. Unfortunately it is relied upon by some to cure more than imaginary ills and, of course, in such instances, it fails. No doubt there are Christian Scientists who have had smallpox and for whom the Christian Science faith brought no relief, but the disciples of that faith never would admit it. The best cure for anti-vaccination agitators is to ask all of the ring leaders in that movement to prove the faith that is in them by exposing themselves to smallpox. One of the most rabid anti-vaccinators we ever have known, bitterly denounced the health authorities who quarantined smallpox in his home town, and even went so far as to publicly say that he would lead a party to tar and feather the doctors who offered vaccination as a preventative of a disease that did not exist. Unfortunately for his cause, he and his wife and two children contracted the disease, all of them were scarred with it for life, and had it not been for a little vaccinated German girl who was willing to nurse him and his family, in all probability the results would have been more serious. At the conclusion of his experience, with one eye gone and a badly pitted face, he was honest enough to admit that he had been nursing a dangerous theory, and that during the rest of his life he would devote himself to preaching the doctrine of vaccination as a preventative of smallpox. It is regretted that one has to pay such a severe penalty in order to learn something that a long time ago was an established fact, as it also is unfortunate that an innocent family had to suffer as a result of the coerciveness of its head.

THE NEW EXECUTIVE SECRETARY

We take pleasure in announcing that on December 1 the Indiana State Medical Association started out with an all-time executive secretary. He is a layman and his name is Thomas A. Hendricks, grandson of the noted gentleman bearing the same name. He has a college education, and for many years has been a newspaper writer, his last position being that of feature writer for the *Indianapolis News*. He comes to us exceedingly well recommended by all of his former employees, and he appeals to us as being capable, energetic, tactful and of that pleasing personality which makes and holds friends. His entire time is to be devoted to the Indiana State Medical Association.



THOS. A. HENDRICKS
Executive Secretary Indiana State Medical Association

tion, and his headquarters will be at the Association's office, 1004 Hume-Mansur Building, Indianapolis.

The selection of an all-time secretary for our Association is the beginning of a great constructive work for the medical profession of Indiana which will be carried out in the future. A man who devotes his entire time to the interests of the medical profession of Indiana can do much to further the interests of the profession and, in particular, all phases of medical practice in which our members are interested. The Bureau of Publicity recently established by the Association has been accomplishing a great work in educating the public concerning health problems, and a large number of newspapers throughout the state are beginning to appreciate the fact that the work of our Bureau is purely altruistic, not intended to

boost any particular line of practice or any special forms of treatment, and that the information given is entirely trustworthy and based upon the most approved knowledge possessed by educated and well trained men. The work of this Bureau alone will take the large part of an executive secretary's time. However, there are many other features that will demand the secretary's attention, and right at the present time one of the most important of these is work in connection with the incoming legislature in our efforts to secure improved legislation as it pertains to the requirements for the practice of medicine, and to assist in securing much constructive legislation as pertains to medical education and public health. Then there are the various committees of the Association that heretofore have functioned in a sort of a perfunctory way and which now should do some real constructive work. Notable among these committees is the one pertaining to Civic and Industrial Relations. It is hoped that this committee through our executive secretary will be able to represent any member of the Indiana State Medical Association in his controversy with the Industrial Board or insurance companies, as also it is expected that through this committee and the work of the executive secretary we may secure a revision of the fee bills and certain rules and regulations governing the Industrial Board in its dealings with the medical profession. Likewise the Association's executive secretary will take a more vital interest in medicolegal work, and the support of members who may have been threatened with malpractice suits. Greater cooperation between the Association and the medical department of the University, the State Board of Health, and the State Board of Medical Registration and Examination is expected as a direct result of the work of the executive secretary who will keep in touch with those organizations. Lastly, the executive secretary in connection with local committees, will have much to do in making all of the arrangements for the annual sessions of the Association, to say nothing of keeping in touch with the various county medical societies, and helping them in their organization work. The dues for 1925 will be collected by Dr. Combs as usual, in order to avoid any confusion that might arise through a change just at this particular time, but hereafter all dues will be paid to the executive secretary.

At all times the offices of the Association, located in the Hume-Mansur Building, Indianapolis, will be open to members of the Association for any and all assistance that may be rendered. It is hoped that the executive secretary may be of material assistance to county medical societies and district medical societies in putting on programs and making other arrangements that will add to the benefit that accrues to those attending such meetings. There also will be a variety of personal services that can and will be rendered

by the executive office, and if any member of the Association wants to know anything all he has to do is to write to "Tom" and, if at all possible, he will supply the necessary information, no matter what it is, outside of furnishing the address of a bootlegger and he draws the line at that.

EDITORIAL NOTES

DEAR DOCTOR:

THE JOURNAL and the Cooperative Medical Advertising Bureau of Chicago maintain a Service Department to answer inquiries from you about pharmaceuticals, surgical instruments and other manufactured products, such as soaps, clothing, automobiles, etc., which you may need in your home, office, sanitarium or hospital.

We invite and urge you to use this Service.

It is absolutely FREE to you.

The Cooperative Bureau is equipped with catalogues and price lists of manufacturers, and can supply you information by return mail.

Perhaps you want a certain kind of instrument which is not advertised in THE JOURNAL, and do not know where to secure it; or do not know where to obtain some automobile supplies you need. This Service Bureau will give you the information.

Whenever possible, the goods will be advertised in our pages; but if they are not, we urge you to ask THE JOURNAL about them, or write direct to the Cooperative Medical Advertising Bureau, 535 N. Dearborn St., Chicago, Illinois.

We want THE JOURNAL to serve YOU.

Don't wait for your county secretary to dun you for medical society dues. They should be paid NOW.

You readers who bind THE JOURNAL are reminded that the index for the year will be found in this number.

CHLORINE gas in ampules is the latest! Leave it to the enterprising manufacturer to take advantage of an opportunity if it promises returns.

We are about to elect county medical society secretaries. Let's put in a lot of young men who will put "pep" into our medical organizations.

If you have anything to sell or exchange why not have a notice of it in the Classified Advertising columns of THE JOURNAL? Send in your copy.

JACK SPRATT bread is extensively advertised as an obesity cure. The A. M. A., through its Council on Pharmacy and Chemistry, brands it a fake. Enough said!

PHYSICAL examinations of the well are all right but they should be performed by the family doctor. This work should not be done second-handed through the medium of some health institute.

THE Season's Greetings to each and every one of the readers of THE JOURNAL. May the holiday spirit which prompts good fellowship and charity in thought and action to all pervade throughout the year.

How many of you read New and Nonofficial Remedies, published in every number of THE

JOURNAL? It is a clearing house for worthwhile new preparations and it throws the spotlight upon some fake and spurious medicines.

SURPRISE your county medical society secretary by paying your medical society dues now. He will appreciate it if he is saved the trouble of soliciting you later for something that should be done by you without effort on his part.

THE members of our Association are reminded that the executive secretary will be pleased to give the Association's assistance to them in effecting a satisfactory settlement of just claims that are referred to the compensation board.

THE JOURNAL desires more society proceedings, news notes and personals. Don't hesitate to send them in for publication. Give name of sender in every instance and address THE JOURNAL of the Indiana State Medical Association, 406 West Berry Street, Fort Wayne, Indiana.

A WISCONSIN industrial concern has presented fifty-seven *Hygeia* subscriptions to employees. That is the kind of work that counts. How many doctors are trying to get their patients to subscribe for *Hygeia*, and isn't it a good thing to encourage employers of labor to follow the example set in Wisconsin?

Don't forget that our Association has a legislative program, and if our committee calls upon you for service give it promptly and cheerfully. We shall attempt to secure an improvement upon our laws governing the requirements for the practice of medicine, and more stringent penalties for infractions of the law.

ONE of the things that the medical profession will have to fight is department store medicine. It has received some hard bumps but it is not out of the running. As Frank Billings says, "Success in the practice of medicine never will come through anything but the family physician, and it is up to him to deliver the goods."

WE notice that the *Dearborn Independent*, the Ford International Weekly, has published an article on Cancer. Hurrah for Ford! We are glad to know that he can do something else besides turn out flivvers and pile up a colossal fortune, even though he does have the reputation for never having done a philanthropic or benevolent thing in his life.

ONE of our numerous correspondents says, "I like THE JOURNAL because of the pep put into the editorial department and because it always keeps before us the idea of better service to our patrons and advocates higher professional and ethical ideals." Thanks for the compliment. We

may fail to please everyone but no one can accuse us justly of not aiming at high ideals.

OUR readers, and particularly the secretaries of county medical societies, are reminded that copy for use in *THE JOURNAL* should be sent to the editor, Dr. Albert E. Bulson, Jr., 406 West Berry Street, Fort Wayne. This notice seems pertinent in view of the establishment of an Association's office in Indianapolis where some copy intended for *THE JOURNAL* might be sent through error.

WE now have an all-time executive secretary, Mr. Thomas A. Hendricks. He will occupy the Association's offices, 1004 Hume-Mansur Building, Indianapolis. Concerning work for the Association he starts out by saying, "Let Tom do it," which is good, but that does not mean that any of us can lay down on the job in giving him assistance and support in endeavors to make our Association larger and better.

WE now have candy week, flower week, canned goods week, and days to celebrate most everything. Now comes the secretary of the Madison County Medical Society who says "Everybody's doing it, why not the doctors? Organize the profession for a 'pay your doctor' week." Not a bad idea, but doctors are not expected to come in for payment until everyone else has had theirs, including the gasoline man and the bootlegger.

WE recently have heard a story concerning the enterprise of an undertaker and a doctor who hung over their doors a decorated "Welcome" sign when the Elks were holding a convention in their town. In another town the village sexton, presumably in an attempt to do honor to the most noted citizen of the town who was being buried with special honors, erected a decorated sign over the cemetery gate which said "Welcome. We knew you well."

DR. JOHN LOVETT MORSE, a well-known Boston physician, gave some pertinent advice concerning compensation for medical services which we published in the November number of *THE JOURNAL*. Those who haven't read the article should read it and profit thereby. The average doctor has very little business ability. Because he follows a profession is no reason why he should not use business methods in caring for the pecuniary side of the practice of medicine.

IMMUNIZING against diphtheria should be a practice followed by every community. The Schick test indicates the ones that need the immunizing treatment. Toxin antitoxin is a preventive in those cases. Doctors should aid our health authorities in getting this valuable measure more generally adopted by the public. There is no more excuse for epidemics of diphtheria than

for epidemics of smallpox. Vaccination against diphtheria is just as effective as vaccination against smallpox.

IN view of his familiarity with the work of collecting the dues for the Association, and in order to avoid any complications, Dr. Combs has consented to continue the collection of dues for 1925, so that to all intents and purposes, so far as the membership problems are concerned, Dr. Combs continues to function as secretary. Therefore, all county medical society secretaries are requested to make their membership reports and send their remittances for dues to Dr. Charles N. Combs, at Terre Haute.

WE are receiving newspaper clippings indicating that some Indiana doctors, knowingly or unknowingly, are being exploited in connection with the chlorine gas treatment for colds and bronchial affections. It may be well to remind those doctors, as well as others who are contemplating adding this new equipment to their armamentarium, that the chlorine gas treatment has been pronounced by the New York State Board of Health as practically worthless. Some very reputable men give it even worse condemnation.

MANY times throughout the year we receive notices concerning medical meetings with the request that we publish the same in the current number of *THE JOURNAL*. In the majority of instances these notices arrive too late to be of any particular service, as the current number of *THE JOURNAL* is in press, or will come from press after the meeting has been held. We are particularly anxious to get notices of all medical society meetings held anywhere within the state, but we urge that such notices be sent us as promptly as possible.

It has been proposed that we have a uniform scientific program for county medical societies. The proposition does not strike us very favorably, for societies differ in the frequency with which they meet, their needs as to scientific work and their ability to carry out a set program. We do believe in having a program to meet the needs of the individual medical societies and it is the duty of officers to work up such programs. If necessary or advisable, they can have the assistance of our Association's office, even to the furnishing of speakers.

THE next Indiana legislature should pass more stringent laws governing the operation of automobiles, and the penalties for infraction of the automobile laws should be more severe. Persons under sixteen years of age should not be permitted to drive motor vehicles, and no one with very defective vision in both eyes, not corrected with glasses, should be permitted to drive automobiles.

Furthermore, for the protection of the public, every vehicle, of whatever form, that has the privileges of the public highways, should carry lights both in the front and in the rear for not only their own protection but the protection of others.

THE JOURNAL is making an appeal for closer co-operation and mutual helpfulness between the Indiana State Medical Association and the Medical Department of the University, the State Board of Health, the Board of Medical Registration and Examination and some other agencies that have to do with various phases of health problems in Indiana. The Indiana State Medical Association should get back of these agencies and they, in turn, should get back of the Indiana State Medical Association. Our interests are common. If we do not get into closer co-operation it will not be the fault of THE JOURNAL which is aiming to further the interests of all.

SOME of the chiropractic colleges pretend to require a preliminary education of their candidates for admission, but the *Journal of the A. M. A.* points out that one of the California chiropractic schools openly advertises a way to avoid the preliminary educational requirement. What is true in California is true in Indiana, and even though the chiropractors in their efforts to secure legal recognition promise to require a reasonable amount of preliminary education from their students, it is a safe bet that they do not intend to lose any students, no matter what the qualifications for entrance, for the chiropractic college is first, last and all the time a commercial enterprise.

A SHORT time ago the editor of THE JOURNAL paused for a moment before the open door of the kitchen of a railroad dining car during the dinner hour. The three colored cooks, with dirty aprons, dirty hands, and perspiring so freely that the perspiration was dropping promiscuously from their foreheads, and the general tendency toward unsanitary regard for the food and its preparation was quite sufficient to take away the desire for food. We wonder how often the dining cars are inspected by health officers or sanitary food commissioners in an effort to correct what we know is a common abuse of cleanliness and sanitation. Certainly there is room for a good deal of improvement.

THE earlier laryngologists learned to use an intubation set, and many of them have had wide experience in this life-saving device by intubating hundreds of children during epidemics of diphtheria. With the discovery of antitoxin intubation became less and less frequently required until now it is almost a lost art, yet occasionally through the negligence or incompetency of someone, a dyspoenic child, suffering from diphtheria,

requires an intubation, and there ought to be some one in every populous neighborhood who can intubate quickly and properly. It must be admitted that intubation rarely is required now that antitoxin is so generally used, but when required there should be someone accessible who can do the operation.

ON January 1 the Indiana legislature convenes. In all probability there will be introduced the usual number of bills which concern, directly or indirectly, phases of medical practice. Some of these bills will be worthy of serious consideration on the part of legislators who have the best interests of the public at heart, whereas others will be unworthy of serious consideration and, in fact, should "die abornin'." The legislative committee of our Association will be on the job, and will attempt by every honorable means to promote wise and beneficent medical legislation in the interests of the public that we serve, and protect the interests of medical men when threatened. The work of the committee is no small job but requires time and effort.

RESPECTED readers, do you ever stop to think that THE JOURNAL carries only the most ethical and trustworthy advertising obtainable and regularly turns down advertising contracts from irresponsible firms or refuses to print advertising that is misleading? This is not true of the so-called independent or proprietary medical journals in which you will find quack advertising mixed in with a little that is good. Think it over, esteemed reader, and use your influence in an effort to secure cleaner advertising pages in the independent journals. We condemn quack doctors, why not condemn quack pharmaceutical houses and remedies of every kind that are misbranded or misrepresented in any way and why not condemn quack medical journals?

A BULLETIN issued by the Bureau of Publicity of the Indiana State Medical Association calls attention to the fact that the medical profession of Indiana is justly proud that the first operation for gall stones was performed by Dr. John S. Bobbs, an Indianapolis surgeon, in 1867. Dr. Bobbs died in Indianapolis in 1870 and now is credited by medical authorities all over the world as being the first surgeon to remove gall stones. At the time of the operation there were no hospitals or trained nurses in Indianapolis. The patient was taken to a room over a drug store where the operation was performed. The patient, Mrs. Z. Burnsworth, of McCordsville, Indiana, lived in comfort more than thirty-eight years after the removal of the stones.

IN the survey of eyesight conditions among industries it has been found that a high proportion

of workers have defective vision and that many employees with poor vision are placed on jobs that are not suitable for them. This indicates the need of a system of eye conservation in most factories, and no man should be put at work without an examination in order to assign a job suitable for the condition of the employee. Of especial importance is the question of light, which always should come from the left and behind whether it is natural or artificial light, and a proper arrangement of illumination invariably is possible in any factory. The wearing of protecting goggles is a necessity, and all one-eyed people, whether in factories or not, should wear glasses for the protection afforded.

FOR a great many years lead pipe has been used for plumbing and considered to be the best. Recently iron pipe, brass lined pipe, and some composition pipes, most of which are less expensive, have been recommended as being superior to lead pipe. In order to boost their games the manufacturers of these new kinds of pipe are trying to get data from the medical profession to the effect that lead pipe as used for plumbing is very apt to produce lead poisoning and on that ground should not be used. They fail to take into consideration that plumbers who are working with lead pipe constantly only occasionally have lead poisoning. The medical profession certainly comes in for a good deal of use in helping promoters, providing public health can be used as an advertising asset.

THE next Indiana legislature will convene on January 9, 1925. The senate is composed of fifty members, of which thirty-two are Republicans and eighteen Democrats. Among this number fifteen are lawyers, eleven are farmers, and not to exceed four representatives of any other business or profession. There is not a doctor in the list. The House of Representatives consists of one hundred members, of which eighty-four are Republicans and sixteen are Democrats. Among this number there are thirty-four farmers, twenty lawyers, eight merchants, and not to exceed five representatives of any other business or profession. There are only two physicians in the House of Representatives, the only representatives of the medical profession in the entire legislature. They are Dr. John C. Knight, from Jonesboro, Grant County, and Dr. Isaac N. Trent, from Muncie, Delaware County.

IN Indiana a doctor writes that he has missed THE JOURNAL for a few months and can not do without it, but admits that he has not paid his medical society dues until recently and gives as his excuse that he wasn't notified. We always have thought that medical society dues are like taxes, due and payable at a certain time and delinquent after that time. Every doctor should

know that his medical society dues are supposed to be paid on or before January 1 of each year, and become delinquent on February 1 after which he fails to receive the benefits of membership. As a matter of courtesy all county medical societies officially notify members concerning the payment of dues, but even if they did not do so, if the members of the Association read THE JOURNAL they will be reminded of their obligation. Right now is a good time to hand the medical society dues to your secretary!

BEFORE the first of the year many county medical societies will have an election of officers. It is well for the members to take into consideration the fact that a secretary can either make or break an organization, and accordingly considerable discretion should be used in the selection of a man to fill that office. A good secretary, if he is a young man, usually is energetic, progressive and tactful. Such a man almost has to be forced to accept the position but the results are worth the high-handed methods adopted to secure him. On the other hand, the secretary must have the co-operation and help of the individual members of a society. He should not be obliged to dun and redun members for dues, nor to beg and implore men to help make up a scientific program. A good secretary will induce regular attendance, and he will make sure that when the society meets there will be a program worth while.

THE Massachusetts General Hospital recently has received a bequest of one million dollars to be used in the construction of a ward or branch hospital for the treatment of persons of limited means of the so-called middle class. This enterprise will fill a long felt want and is worthy of duplication in all of the large cities where ample provision is made for the strictly charity patients or those that are very poor, and the luxurious apartments and attention afforded the very rich. In most of the large cities no provision has been made for a very respectable self-supporting middle class who object to charity and yet are unable to afford the luxuries of the rich. There is no reason why hospital service suited to the needs and to the ability to pay should not be provided. There is no sense in pauperizing the large proportion of the middle class because they can not afford the hospital facilities provided for the well-to-do.

THERE was a time when Vienna was the only place where one could obtain intensive post-graduate work in any one subject. It still is a wonderful place for that purpose, having recovered some of its pre-war reputation in that respect, but within recent years a very creditable effort has been put forth in this country to solve the problem of post-graduate instruction and at the present time it is quite possible to secure post-graduate instruction along many special lines in

one or more of the large medical centers. Therefore, those who desire to secure intensive instruction in some special line will do well to investigate the possibilities in this country before deciding to go to Europe. This winter the medical colleges and post-graduate schools in several of the eastern cities are offering a large number of special courses not hitherto obtainable in this country and which will appeal to those desiring advanced instruction.

OUR Association is about to begin some constructive work under the initiative of our new executive secretary and one of the things to be considered is an increase in the membership of our county medical societies. As it is at present there are some very poor men in and some very good men out of our county medical societies. We always have maintained that it is quality and not quantity that should be considered in the membership of any organization but the thing we desire to emphasize now is that the really good men who are out of our medical organizations ought to be in, and special effort put forth to get them in. There are some men not in who should never get in. They are quackish in their methods of practice, unethical in conduct, and inclined to be disturbers. Rarely do such men change when they get in a medical society. The effort to secure them as members of reputable medical societies should be undertaken with due consideration of the possibilities for harm.

PERHAPS our members do not know it but the medical defense feature of our Association has been eminently satisfactory. It has been in operation over twelve years and we now have set aside in the treasury the maximum amount of surplus required to care for the medical defense feature. It is quite true that many members carry policies with such companies as the Medical Protective Company, of Fort Wayne, a highly reputable and trustworthy company, and our Association often joins with them in the defense of members, but there are a large number of members of the Association who have no other protection than that afforded by our Association, and several of such members have had reason to be thankful for the defense given by the Association in malpractice suits. As an evidence of what may be expended in one of these suits we mention that in one case the Association paid out over fifteen hundred dollars, and the member who received that service is paying seventy-five cents a year for it.

THE average doctor is a self-satisfied chap who doesn't do much to help himself and he doesn't give others much encouragement to help him. However, beginning with January 1 the Indiana State Medical Association is going to put on a campaign whereby the individual members of the

Association will receive some benefit through the direct action of the Association, but to secure the best results it will be necessary for each and every member of the Association to give his individual co-operation and assistance. The program includes organization work in enlarging our county medical societies and improving the character of their work, the correction of injustices and inconsistency connected with industrial work, a better method of handling medico-legal protection, increased co-operation in the various medical activities connected with our state organizations and institutions, an attempt to establish uniform rules governing contract practice, and, in fact, concerted action covering many phases of the every day doctor's work.

NOT infrequently we hear of some woman who is selling herself, a child, or the roof over her head in order to obtain money to pay some doctor an enormous fee for an operation upon a husband or loved one. Just now the newspapers are carrying a story to the effect that a woman has publicly offered herself for sale for a year for five hundred dollars, in order to obtain the price of an operation for her daughter in Cleveland.

We get exceedingly tired of hearing these sensational stories, and it is time that newspapers cease to publish them inasmuch as they are, so far as the medical profession is concerned, not founded on fact. There never was a deserving person in the United States who has been denied operative attention at the hands of skilled surgeons merely because no fee was in sight for the work. No reputable doctor ever refused to do charity work, nor would he accept a fee that came from the sale of a woman's virtue or the roof over her head, and it is time to put an end to these stories about terrible sacrifices in order to meet the demands of surgeons.

WHEN any newspaper recommends a chiropractor it is bad enough, but it is far worse to recommend chiropractic treatment for such a condition as infantile paralysis. *The Journal of the A. M. A.* calls attention to an Illinois newspaper that speaks of infantile paralysis as being the direct result of nerve impingement somewhere along the contour of the spinal column and then, after describing the symptoms that may develop with infantile paralysis, proceeds to recommend that a chiropractor be consulted. Very properly this comment is made: "What would be thought of a newspaper that would urge parents who had a child suffering from diphtheria, scarlet fever, smallpox, or some equally virulent disease, to take the child to a voodoo doctor or to pronounce incantations over the little one, or to rely upon the healing power of a horse chestnut or a magic ring, yet any one of these suggestions is no more iniquitous than that which would lead the public

to believe that infantile paralysis is due to impingement of spinal nerves, to be cured by chiropractic adjustment!"

THE Gorgas Memorial program is now in process of development. The American College of Surgeons is backing the movement, which has as its aim the establishment of an institute in Panama for research in tropical diseases and a health educational campaign covering health subjects and, in particular, the necessity for observing certain sanitary regulations in order to avoid the ravages of disease, with destruction of the mosquito and the fly as an aid in eliminating the disseminators of disease. The Republic of Panama has donated a site, and the South American republics have agreed to raise at least one million dollars towards the endowment fund in appreciation of Gorgas' success in eradicating yellow fever from the southern continent. It is hoped that the United States government will contribute at least one million dollars, and, in addition, five million dollars will be raised by popular subscription in the United States and Canada. The endowment fund will be invested in trust securities and the income only utilized to provide a permanent working fund.

DIPHtheria is prevalent in various sections of Indiana at the present time. We heartily commend the action of the health authorities in not only urging upon the medical profession and the public the importance of the early diagnosis of the disease and the prompt administration of anti-toxin, but the administration of toxin anti-toxin to all children as a preventive. Furthermore, we wish to call the attention of the medical profession to the very sound doctrine of the New York City Board of Health that a death from diphtheria in this day and age is rarely excusable, and is due to the negligence of the family or the doctor. Every suspicious sore throat should be treated as diphtheria, and every case of croup should be considered diphtheritic unless it has gone through a most careful and painstaking process of elimination in order to prove that it is spasmodic. One well known health officer in Indiana has made the statement that every one of the diphtheria deaths in his community was due to negligence, oftentimes on the part of the physician who failed to administer anti-toxin at all or early enough.

THE chiropractors are beginning to complain because the public ceases to take them seriously and has begun to cut down on patronage. A leader in chiropractic says that "chiropractors need more patients in order to get more money, for without money life is not worth living." He says that one way to inveigle the public is by the chiropractic apparatus known as a neurocalometer which was devised as a fee-getter and which is

advertised to the chiropractors as a money-maker. Commercialism is rampant in all of the literature and talks of chiropractors. One chiropractic leader says that "if malpractice suits instituted by the medical doctors continue there will be no chiropractic profession in 1926, for these malpractice suits are crushing the life out of the chiropractic profession." Slowly but nevertheless surely the public is beginning to understand that chiropractors have nothing to back them up except advertising and self-exploitation. The whole thing is based on commercial gain, and the sordid discussion of incomes constitute the basis of appeals to students by the so-called chiropractic colleges.

WE have been asked to supply annual rates for a half page advertisement of Angostura Bitters. We admire the nerve of the agency offering this advertising. Who does not remember Angostura Bitters which even recently, according to the label, is said to be made from "pure rum containing about 45% alcohol?" It is represented as being a mixture of certain bitter aromatic and carminative substances, together with alcohol added as a preservative and solvent. It is recommended as an addition to ginger ale, grape juice, mince pie, ices, etc. In our judgment it is a better cocktail than some of the cocktails served now days, but how does the preparation escape the notice of the prohibition agents? Just why the government should be so vigorous in its prosecution of bootleggers and then let the manufacturers of Angostura Bitters escape is a matter beyond our comprehension. No decent medical journal will carry the advertising of Angostura Bitters, anyway, as reputable medical journals will not, knowingly, exploit a nostrum, and they are not prepared to help along bootlegging even when disguised under the name of "bitters."

DOCTORS are interested in good roads and should use their influence to secure more improvements during the year 1925. The state highway commission seems inclined to make the improvements if the money is forthcoming. The suggestion is made that the two cent gasoline tax be increased. No objection to this suggestion will be offered by automobile owners providing there is some guarantee that all of the money raised by the gasoline tax will be applied on the roads. The trouble of it is, our state officials have a way of juggling funds, and there is good reason to believe that money raised by taxation for a specific purpose is not used in its entirety for the purpose for which it was raised. Several state boards or commissions are making complaint concerning this juggling, and even our State Board of Medical Registration and Examination has a justifiable objection to the practice now followed of diverting some of the

funds of the Board to the general fund because the law unfairly provides for such action. Doctors are beginning to be interested in politics and should use their influence in an endeavor to prevent the juggling of finances that have been raised by taxation for specific purposes.

SOME very helpful advice concerning exercises is contained in a recent number of *Hygeia*, and walking is very highly recommended as suitable exercise for most of us. A ten-mile walk daily is none too much if the amount of food we consume is taken into consideration, but if we have been walking only a mile or two we should not change in a day to a walk of five or ten miles. In this connection it is well to remember that many a business man leading a sedentary life and whose tissues are what we ordinarily call "soft," starts out on a vacation and throughout the first few days overdoes the exercise stunt in tramping or engaging in vigorous sports, with resulting great harm. Exercise should be moderate in the beginning and gradually increase. If it produces fatigue which can not be slept off in a night, it is very harmful, and many a business man who is at a desk all the week and then plays thirty-six holes of golf on Sunday pays a penalty that affects him for several days and perhaps learns to his sorrow that he has disturbed his cardiac and circulatory apparatus beyond repair. The injunction to begin exercises in a moderate way, and at all times to avoid strenuous exercise is indicated particularly for men past middle age.

HEALTH columns are getting to be popular in newspapers and, profiting by it, the quacks, medical pretenders, and the manufacturers of proprietary remedies are attempting to duplicate this feature by publishing, even at regular advertising rates, health columns that simulate departments of that type conducted by trustworthy medical men. The difference is that in one instance the health department is an altruistic enterprise giving trustworthy information, whereas in the other instance it is a commercial enterprise run solely for the purpose of advertising quack doctors and fake remedies. One of the jobs for our Bureau of Publicity is to attempt to secure the co-operation of lay papers in an endeavor to have all health columns edited by men of recognized professional standing. We note with great satisfaction that there is an increasing number of newspapers in Indiana that are publishing the articles released by the Bureau of Publicity of our Indiana State Medical Association. These articles discuss various phases of individual and community health problems and are interesting reading for the public. In all probability it will be but a short time before our Bureau of Publicity will be looked upon as the most trustworthy avenue through which to secure health information.

AFTER fifteen years of continuous service as secretary of the Indiana State Medical Association, Dr. Charles N. Combs has resigned and is succeeded by Mr. Thomas A. Hendricks, of Indianapolis, who becomes an all-time executive secretary for the Association. Dr. Combs was one of the first to point out the advantages of an all-time secretary for the Association, and but for the influence of his friends he long ago would have resigned in favor of one who could devote his entire time to the affairs of the Association. Throughout the entire fifteen years of his service he has been a faithful, conscientious, and efficient officer, and his quiet and unassuming manner has brought him the friendship and loyalty of every member of the Association. The records of the Association have been kept as they never have been kept before, and the duties of the office have been cared for in that punctilious and painstaking way which marks efficiency and conscientious attention to duty. It is with profound regret that the Association loses such a valuable executive, and it is only because of the increased duties brought about by the acceptance of the constructive program now being carried out by all of the state medical associations, that require an all-time secretary to carry into effect, that has led the Association reluctantly to accept Dr. Combs' resignation.

The Caduceus is the magazine of the students of the Middlesex College of Medicine and Surgery in Massachusetts. The June, 1924, number is being mailed out even at this late date. Practically the entire number is devoted to abuse of the American Medical Association and, in particular, the officers of it. The animus which prompts such a tirade is the fact that the Middlesex College of Medicine and Surgery, after due investigation, was not accepted by the Rockefeller Foundation and by the educational committee of the A. M. A. as one of the high grade institutions of learning and maintaining standards worthy of acceptance by State Boards of Medical Registration and Examination having high ideals as to qualifications of practitioners of medicine. Just what the students of the Middlesex College of Medicine and Surgery, presumably backed by the faculty of the institution, expect to accomplish by a campaign of villification and personal abuse of officers and members of the leading medical association of the world, is hard to understand. If the Middlesex College is below standard, as reported by a committee which investigated the qualifications of the institution for recognition, then it is up to the trustees of that school to get busy in an effort to improve conditions rather than fall back upon the child's play of throwing stones at an imaginary foe. Nothing can be gained by the policy now pursued, for it spells disaster, and does no harm to the A. M. A., the various components of that organization, and numerous officers of the same.

THIS "monkey business" is getting interesting. Present reports indicate that a Frenchman controls the market for chimpanzees used by a celebrated exponent of the gland treatment in rejuvenating old and decrepit members of the male sex who desire to cut up the capers of their youth, and the price of chimpanzees has multiplied ten fold to say nothing of making rich the man who is shrewd enough to get a corner on the chimpanzees. Furthermore, there seems to be a long waiting list of these old codgers who are seeking the "fountain of youth" and are willing to pay an outrageous price for a treatment, the value of which already has been discounted. It would be a good thing if some of these human wrecks could be made to appreciate the fact that you can not beat old Father Time, but probably throughout all the ages the adage "Hope springs eternal in the human breast" will dominate the actions of a lot of old worn out human goats who wish to be young again. In the meantime a few doctors with elastic consciences are willing to cater to the aspirations of these old codgers and profit handsomely in a financial way in consequence. When this "monkey business" first started it was said that it soon would die out, but it will not die until the last chimpanzee has vanished from the earth, and even then the attempt at rejuvenation will be continued with goats. The army of old men and women who want to be frisky again, and who have the price to pay for it, will never get any smaller. If any honest doctors desire to get in on the money making side of this "monkey business" they are advised to begin raising goats and leave the rejuvenation process to those without conscience.

RECENTLY a poor woman wrote to the governor of New York asking that a state doctor be sent to take care of her and that the poor master in her vicinity be asked to give her appropriate attention. The pathetic appeal was sent, with apologies, to the local health officer who in reporting on the case stated that the woman had been receiving appropriate medical attention and that the poor master had been helping her for some time. He wound up with the statement, "She thinks she is entitled to lamb chops and chicken." This experience is duplicated by practically every charitable and benevolent association. Organized charity should attempt to help the poor help themselves. We are creating a very large class of people who not only are dependents unnecessarily but are becoming very exacting in their demands as to the kind and quality of assistance rendered them. Some go on the theory that the world owes them a living whether they do anything or not, and they propose to get it by fair or foul means. One of the things that our charitable organizations should insist upon is a policy that contributes assistance where assistance is needed, but that the best as-

sistance that can be rendered is that which puts the receiver in a position to help himself and steers him away from the dependent class. Doctors probably do as much as any one to increase the dependent class, but there are certain charitable organizations that are so badly mismanaged and have such a poor conception of real helpfulness that they, too, contribute to the growing number of dependents who not only expect but demand the luxuries as well as the comforts of life without making much effort on their part to obtain them.

LEADING medical experts in the central part of New York testify that a young woman suffered a hemorrhage in or about the spinal cord, causing permanent injuries, as a direct result of chiropractic treatment. The defendant chiropractor admitted on the witness stand that he was not licensed to practice medicine, surgery or osteopathy. The jury found the defendant chiropractor guilty of practicing medicine without a license and negligent in giving treatment. Those who testified for the defendant produced little evidence to show that they had any qualifications of any kind whatsoever. Even the leading chiropractic expert admitted having only fourteen months' study in a chiropractic school, and his preliminary education was confined to the common schools in which he never went above the eighth grade. He contended that chiropractic treatment could cure cancer, tuberculosis, smallpox, diphtheria, scarlet fever, typhoid fever and diabetes, and when asked if he believed in the germ theory he stated that he did not and that he did not believe in vaccination for smallpox, antitoxin for diphtheria, or insulin for diabetes. And yet the chiropractors seek to be licensed to practice upon suffering humanity. If they gain their object we will have placed a premium upon ignorance. Malpractice suits against chiropractors have brought forth the finest kind of evidence to prove that these pretenders have no qualifications that entitle them to recognition, and are dangerous when permitted to minister to the sick and suffering. The public and especially legislators should be acquainted with the facts brought out in these chiropractic malpractice suits that are coming along with striking regularity in nearly all of the states.

AT the recent meeting of state medical association secretaries held in Chicago it developed that some states have medical society dues of as much as twenty-five dollars per year, and there are a number of states that have dues of fifteen dollars per year. The general opinion from these states was that doctors do not object to dues if they really are getting something for the money expended, and in the states where the dues are twenty-five dollars per year many of the doctors have said, "Raise the dues to fifty dollars per

year if you can do any more than you are doing now."

Here in Indiana we have dues of seven dollars per year. The members of the Indiana State Medical Association have been getting a good deal for that seven dollars: medical defense, a Bureau of Publicity which has done a wonderful work in educating the public through the newspapers and other avenues of approach to the laity, organization expenses, including the expenses of the annual sessions, expenses of the councilors and officers, and lastly, the subscription to *THE JOURNAL*.

With the installation of a new executive secretary the Association will begin an era of increased activity, with special services for the members of the Association. All of this will be done under the present dues, but it is expected that the results will justify the members of the Association in saying eventually, as they have said in some other states, "Increase the work that you are doing and we will stand for the increase in the dues necessary to carry it on."

When all is said on this subject isn't it ridiculous for doctors to offer complaint concerning the insignificant sum asked for medical society dues for an entire year when the average doctor will spend more than that amount in one night for entertainment at the theatre, and does not bat an eye to pay ten times as much as a penalty for frivolity of one kind or another. It is a strange world when we find fault with the things really worth while and wink at or really approve things that are relatively worthless. We ought to change our rules of conduct.

We regularly receive letters from doctors outside as well as inside the state of Indiana complimenting us upon the character of *THE JOURNAL* and especially the editorial stand for the better things in all that pertains to medical practice. Occasionally we receive a letter of carping criticism, invariably anonymous and carrying with it an ill founded grievance or perhaps the suggestion that we should wink our eyes at some infractions of ethics or honesty in the practice of medicine. In passing we desire to say that we welcome friendly and constructive criticism. In editing a medical journal as in editing any other kind of a journal it is impossible to please everyone. In fact if the lowly Nazarene encountered traducers and fault-finders concerning his conduct how can we with our imperfections expect to come through unscathed? There are those without experience who probably think that they can edit and manage a medical journal better than our *JOURNAL* is edited and managed, and yet if they turned their hand to it they might find that it is not an easy task to become responsible for a journal that has any character and standing. We are endeavoring to produce a periodical that at all times and on every occasion stands for the

highest ethics and the most approved principles governing human conduct, and especially including the practice of medicine. We make mistakes and are willing to admit it, but we are trying to be unswerving in our allegiance to what we think is right. We court and even solicit the counsel and advice of all those who have the interests of our medical profession at heart, as we also solicit constructive criticism from any one in the hope that it will help in making a better journal. We have only the kindest and most appreciative feeling for the one who comes to us in an open, friendly way with a criticism of policies or conduct, but we have only detestation for the cowardly man or woman who, under the cover of an anonymous communication vents his peeve whether justified or not. It is our ambition and desire to produce a medical journal that is second to no other journal in its class, and judging from the comments we have received we have not missed the mark, but that does not alter our opinion as to the possibility of improving upon the work undertaken, and receiving valuable assistance through the counsel and advice of the members of the Indiana State Medical Association who, in the final analysis, are the ones whose good opinion is courted.

THE Prince of Wales did not get out of the country without being the recipient of numerous favors that were offered purely with the idea of securing advertising and profit therefrom. If it isn't the automobile in which he rode while he was visiting in the United States it is the brand of cigarettes he chose for steady diet out of large quantities that were offered him, and even the haberdasher who sold him a necktie is advertising the fact. We wouldn't be surprised if some of these tradesmen adopt such an advertising feature as "Haberdasher in the United States to His Royal Highness, the Prince of Wales, of England." or "This is the poultry farm that furnished the eggs that formed the basis of the breakfast of the Prince of Wales while he was in the United States." Even the fair and buxom young woman who was appointed to make the rose colored or pale blue crepe-de-chine pajamas that the Prince of Wales is reported to have worn while in this country came in for plenty of advertising in the daily papers. As yet we haven't heard of any enterprising doctor who let the press in on the secret that he had been called to treat the Prince for a "tummy ache" caused by indulgence in too much of the rich food offered by his American admirers, or perhaps to prescribe for that aching head that it is reported could have come from the all-night parties that rumor says were not without "pep," stimulated by the alcoholic beverages that escape the vigilance of prohibition officers.

How nauseating it must be to suffer from the effects of a title and the kowtowing of a lot of

people who worship at the shrine of royalty, not because of royalty itself but a certain kind of distinction that goes with it. The Prince showed evidence of being a real human being and probably more than once has wished that he might travel incognito and enjoy himself in his own sweet way as others do who are born outside of the atmosphere of Windsor Castle, untainted by royal blood which makes the possessor a victim of snobs and a follower of the most irksome conventions that are prescribed for him. Finally, we wonder if the Prince of Wales oftentimes does not wish that he were an humble subject in a Republic like America and not destined to be king of a monarchy and subjected to all of the restrictions that go with a position of that kind. Many of us prefer to be poor doctors, and we certainly are satisfied not to profit by reflection from a position in the light of royalty!

A YOUNG mother has voiced a complaint which is altogether too common, deserves serious consideration, and is as follows: "My husband and I have a small home and I do my own housework. When about to be confined my physician advised me that I must go to a hospital. I arranged for a private room at a price that I thought was exorbitant, and I thought that it included nursing attention. Much to my surprise I learned, after entering the hospital, that I was expected to have a private nurse. My confinement and recovery were normal but I was given to understand that the private nurse should remain with me during the two weeks that I remained in the hospital, and my family physician advised me that it would be better if I took the nurse home with me for an additional week. The entire expense, including the bill of my physician, which latter was very reasonable, the bill from the private nurse and the hospital bill, including the board for the private nurse, put us in debt more than we had expected and it will take my husband several months to catch up even though he earns a good salary. My mother informs me that she was confined three times in hospitals and each time the regular hospital nurses gave even more care than I received, and her total expense each time was less than one-fourth of what I paid. Why is it necessary to have these special nurses now days in ordinary obstetrical cases? Aren't the hospital fees in general unnecessarily high and an injustice to people like us, in ordinary circumstances? We felt that we desired to have my confinement terminated under favorable conditions with the best chances for myself and my baby, but our experience has discouraged us from having any more babies, and it probably discourages many other young married couples unless they are well-to-do."

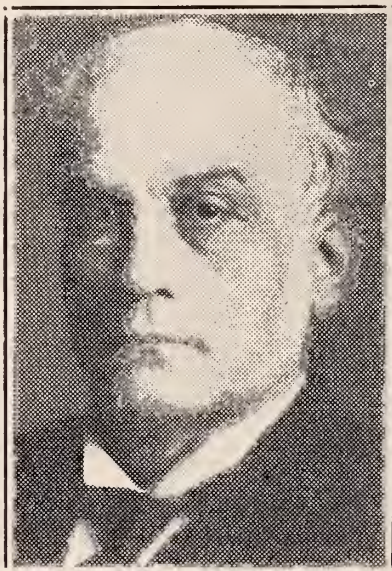
This is a complaint commonly heard in many cities and it is a serious reflection upon the management of our hospitals. There is absolutely no

sense in requiring patients, especially those in moderate circumstances, to have special nurses except in those rare cases where patients require constant attention. There was a time when the floor nursing in our hospitals was not only sufficient but was every bit as good or better than most of the nursing given by private nurses. Why can not we have a little more of this spirit of co-operation at the present time in an effort to serve the public without such an extravagant outlay for nursing?

DEATHS

NORMAN MCFARLAND, M.D., of New Pittsburg, died November 4. Dr. McFarland was eighty-two years of age.

CHARLES MICHAELS, M.D., of Independence, died October 22, aged fifty-seven years. Dr. Michaels was a graduate of the Central College, of Physicians and Surgeons, in 1897.



JOSEPH LORAIN GILBERT, M.D., prominent physician of Kendallville, died November 28 at his home in that city. Dr. Gilbert was eighty years of age. He practiced for many years at Kendallville, and was company physician for the New York Central Railroad, being a member of the railroad's examining staff. He was a member of the Indiana State Medical Association, the Noble County Medical Society, and a Fellow of the American Medical Association. He graduated from the Bellevue Hospital Medical College, New York, in 1866.

JAMES A. COOPER, M.D., resident of Terre Haute for thirty-five years, died November 24, at the age of ninety-five years. Dr. Cooper was not in practice at the time of his death. He

graduated from the Medical College of Evansville in 1851.

GEORGE C. MASON, M.D., of Oakland City, died November 5. Dr. Mason was seventy-six years old. He was a member of the Gibson County Medical Society, the Indiana State Medical Association and the American Medical Association. He graduated from the Medical College of Indiana, Indianapolis, in 1879.

NEWS NOTES AND PERSONALS

Anything in the line of physicians' supplies or equipment may be obtained from advertisers in THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION. Patronize these advertisers, for it means a continuance of their advertising patronage, and the latter means a larger and better Journal for you.

THE Ripley County Medical Society held its regular monthly meeting at Versailles, November 3.

DR. E. E. EVANS, of Gary, and Miss Eva Lemley, of Crown Point, were married November 6, at Gary.

DR. C. C. DU BOIS, of Warsaw, is spending the winter in Boston where he is taking a course in pediatrics at Harvard.

AT the monthly meeting of the Terre Haute Academy of Medicine, Dr. Andre Crotti, of Columbus, Ohio, presented a paper.

DR. ALFRED HENRY has been appointed director of city tuberculosis clinics of Indianapolis. Dr. Henry succeeds Dr. J. M. McIntyre, who resigned.

THE Indianapolis Medical Society held a meeting at the City Hospital, November 25. Dr. W. E. Pennington, of Indianapolis, presented a paper on "Gall Bladder Study."

THE Kosciusko County Medical Society held its regular monthly meeting at Warsaw, November 18. Papers were presented by Drs. C. N. Howard and H. F. Steele.

DR. LEON GRAY, of Cloverdale, and Miss Muriel Tabor were married at the home of the bride's parents in Baldwin, Iowa, November 6. They will reside in Cloverdale.

THE Jasper-Newton County Medical Society held its regular monthly meeting at Brook, November 28. Papers were presented by Drs. T. E. Collier and H. E. English.

DR. P. G. FERMIER, of Leesburg, has been appointed to the board of U. S. pension examiners for Kosciusko County, succeeding Dr. J. S. Smith, of Warsaw, who resigned.

A DINNER meeting of the Muncie Academy of Medicine was held at the Hotel Roberts, November 14. Dr. Lewis W. Bremerman, of Chicago, presented a paper on "Ureteral Calculi."

THE Carroll County Medical Society held a meeting at Flora, November 14. Dr. H. R. Royster, of Frankfort, presented a paper on "Surgery of the Gall Bladder and Biliary Tract."

DR. GEORGE G. RICHARDSON has moved from Van Buren to Marion, Indiana, where he will continue the practice of medicine. Dr. Richardson had practiced medicine in Van Buren for nearly twenty years.

DR. J. V. STEVENS has moved from Spencer, Indiana, to Janesville, Wisconsin, from whence he came twelve years ago. Dr. Stevens was president of the Second District Medical Society at the time of his removal.

THE Northeastern Indiana Academy of Medicine held a dinner meeting at the Gawthrop Inn, Kendallville, December 4. Dr. Wilber E. Post, of Chicago, presented a paper on "Manifestations of Impaired Renal Functions."

SCHOLARSHIPS on the Oliver-Rea Foundation for graduate study in Medicine are available at the New York Post-Graduate Medical School and Hospital. Inquiries should be addressed to the Dean, 301 East Twentieth Street, New York City.

THE Eleventh District Medical Society held a meeting at Peru, November 5, which more than one hundred and fifty members of the organization attended. Dr. Erwin P. Zeisler, of Chicago, professor of dermatology at Northwestern University, held a skin clinic.

WE have received an interesting booklet concerning the Harrow Foundation Clinic, opened November 10, 1924, at Glendale, California. The clinic was incorporated in 1921 under the laws of the state of California and it is therefore permitted to operate, not for profit. It will devote its entire facilities to research work in endocrinology.

DR. MURRAY N. HADLEY, of Indianapolis, was elected president of the Ohio Valley Medical Society which held its annual convention in Evansville in November. Other officers are: Dr. W. C. Herman, Cincinnati, first vice-president; Dr. J. V. Welborn, Evansville, second vice-president; and Dr. Benjamin L. W. Floyd, Evansville, secretary-treasurer.

THE Commissioner of Indian affairs has ruled that all physicians who are receiving the full salary of their allocations under reclassification will be required to give all of their time to Indian

service duties, and will not be permitted to engage in private practice. This circular does not apply to contract physicians where compensation is less than \$1,860 a year.

THE regular dinner meeting of the Muncie Academy of Medicine was held at the Hotel Roberts, November 28. Dr. W. A. Evans, roentgenologist at the Harper Hospital, Detroit, Michigan, presented a paper on "The Chest in Its Relation to Malignancy and Deep Roentgen Therapy." The paper was discussed by Drs. V. H. Moon, and W. D. Gatch, both of Indianapolis.

EXAMINATIONS of candidates for entrance into the Regular Corps of the U. S. Public Health Service will be held at the following named places on January 5, 1925: Washington, D. C.; Chicago, Illinois; New Orleans, La.; San Francisco, Calif. Requests for information or permission to take this examination should be addressed to the Surgeon-General, U. S. Public Health Service, Washington, D. C.

At a meeting of the Paul Coble Post No. 26 of the American Legion, held November 12, the Past Commander's badge was conferred by General Aultman upon each of the following: Dr. J. R. Newcomb, Dr. H. G. Hamer, Dr. H. K. Langdon and Dr. Carl Habich. This post has one hundred and seventy-four members all of whom are doctors and dentists. Dr. Paul T. Hurt is the present commander.

THE St. Joseph Medical Society held its thirty-eighth annual meeting at South Bend, November 19. At the closing session, held at the Oliver Hotel, Dr. Joseph C. Beck, of Chicago, presented a paper on "Ear, Nose and Throat Conditions of Interest to General Men." At the afternoon session papers were presented by Dr. William Englebach, of St. Louis, Missouri; Dr. Alfred Henry, of Indianapolis; and Dr. Ernest E. Irons, of Chicago.

A RECENT report from the Putnam County Hospital at Greencastle, following completion of its first year of service, under the management of Miss Eva Milburn, states that the hospital cared for 240 patients during the year, with an average stay of seven and three-fourths days. The hospital, maintained by a county tax, is for the indigent as well as those able to pay and, in its first year, paid more than two-thirds of its overhead expenses.

At the fifteenth annual meeting of the National Committee for Mental Hygiene, Dr. Charles P. Emerson, dean of the Medical Department of Indiana University, Indianapolis, was chosen president to succeed Wm. H. Welch, of Johns Hopkins University. Dr. Charles W. Eliot, of

Harvard, and Dr. Bernard Sachs, of New York, were chosen vice-presidents. This committee is a strong organization and at its last meeting discussed medical hygiene in its relation to education. Its work is enhanced by an appropriation from the Rockefeller Foundation. One of the principal activities for the coming year will be a study of mental hygiene as it pertains to the common schools.

SOCIETIES AND INSTITUTIONS

INDIANA STATE MEDICAL ASSOCIATION

A called meeting of the Council of the Indiana State Medical Association was held at the Severin Hotel, Friday, November 28, 1924.

Present: Drs. Albert E. Bulson, Jr., W. R. Moffitt, O. T. Scamahorn, E. E. Evans, W. Leach, C. S. Black, B. VanSweringen, C. E. Gillespie and Charles N. Combs, Secretary.

Dr. A. E. Bulson, Jr., was elected temporary chairman of the meeting. Dr. Bulson stated the purpose of the meeting, which was to be a report from the joint committee composed of Drs. Wishard, Cregor and Ross of the Bureau of Publicity, and Drs. Bulson, Davidson and Earp of the Advisory Committee. This joint committee reported the tentative selection of Mr. Thomas A. Hendricks of the Indianapolis News as full-time Executive Secretary of the Association.

Dr. B. VanSweringen moved and Dr. Moffitt seconded the adoption of the report of the committee with the employment of Mr. Hendricks as Executive Secretary, to take office December 1, with salary from that date.

After discussion, vote was taken and motion adopted unanimously.

Dr. Combs tendered his resignation as Secretary, same to take effect at once. After discussion concerning the collection of this year's dues, which already had been started by Dr. Combs, it was moved by Dr. Black and seconded by Dr. Leach to accept the resignation with the provision that Dr. Combs continue the collection of dues until the bulk of the membership had been sent in, which would be about February 1. Motion carried.

Moved by Dr. B. VanSweringen, seconded by Dr. Moffitt, that Dr. Combs continue as Treasurer for the balance of the year for which he was elected, which is for the year 1925. Motion was amended to add that he be allowed the usual honorarium for 1925. The amended motion was passed unanimously.

Dr. Frank Cregor appeared before the meeting and presented Mr. Thomas A. Hendricks, the new Executive Secretary. Dr. Cregor first presented the resignation of Dr. James H. Stygall, Secretary of the Bureau of Publicity, same to take effect immediately, which resignation had been accepted by the committee.

Dr. Cregor spoke at length concerning the proposed activities of the Legislative Committee, which was preparing for the coming session of the Legislature.

Mr. Hendricks gave a report concerning the recent Conference of State Secretaries and Editors at the American Medical Association Building, which he attended, and was very enthusiastic concerning his new office.

Adjournment.

CHARLES N. COMBS, Secretary.

DECATUR COUNTY MEDICAL SOCIETY

With ten members and four visitors present, the Decatur County Medical Society had a typical "up and at 'em" meeting at Greensburg the evening of December 5. Dr. Frank Cregor, Dr. W. S. Tomlin, of Indianapolis, and Dr. C. E. Gillespie, Councilor of the Fourth District, Seymour, made the principal talks.

Dr. Tomlin spoke with emphasis upon the importance

of the medical profession presenting a solid front within the weeks to come. He said: "The nation's greatest possession is its people, and its next greatest possession is the health of the people." The speaker emphasized the importance of acquaintanceship between physicians, pointing out the advantage of joint county meetings and district meetings. "These get-togethers should be more frequent for we as physicians have a common interest and can profit through the exchange of views."

Dr. Cregor spoke at length upon the legislative program, basing his talk upon Harry Eugene Kelly's splendid article in a recent A. M. A. Bulletin. (This article may be obtained and should be read by every physician in Indiana. It is a masterpiece of clear English and clear reasoning.) Dr. Cregor spoke upon the idea uneducated people have that there is a medical trust. He said: "Few people realize the altruism of medicine, and how much charity work an individual physician does and is glad to do. Nothing that we physicians know is not at the public call. There are no secrets in medicine." Dr. Cregor stated that it was costing Indiana University more than \$500 a year for every individual who is studying medicine at the State Institution.

Dr. Gillespie spoke of the advantage along both social and scientific lines of tri-county meetings. He said in these days of good roads and automobiles it is easy for the various county members to join with other counties and hold meetings. These meetings were especially popular with the wives of physicians. While the men met in scientific gatherings the women played cards and otherwise could get together in a social way, the speaker said. Dr. Gillespie based his statements upon the success of the tri-county meetings and social get-togethers of Jackson, Jennings and Bartholomew counties, one of which was held this month on December 10, a report of which will be carried in next month's JOURNAL.

Dr. H. S. McKee presided at the meeting, which was attended by the following physicians: C. F. Kercheval, William E. Thomas, I. M. Sanders, B. S. White, P. C. Bentle, D. W. Weaver, D. E. Douglas, and H. S. McKee, all of Greensburg; D. W. Good, Newpoint, and Charles Wood, of Westport; and the following visitors: Dr. C. E. Gillespie, Seymour; Dr. W. S. Tomlin, Dr. Frank W. Cregor and Thomas A. Hendricks, of Indianapolis.

DECATUR COUNTY NOTES

A diphtheria scare kept the physicians of Decatur county on the run several weeks ago, but so efficient was their work that the threatened epidemic was put down before it reached any great proportions.

* * *

Decatur county physicians are still speaking of the splendid paper which David Ross, M.D., read to them at their last meeting in November upon the "Tuberculous Spine." Dr. W. H. Stemm and Dr. G. L. Grossman, of North Vernon, were also present at the meeting at which Dr. Ross read his paper.

* * *

Barney Oldfield may have his cigar, and Vice-President-Elect Dawes his Hell and Maria pipe, but these have not attained the fame that has P. C. Bentle's time-honored meerschaum in Decatur county. No matter where Dr. Bentle is called, whenever he is on the firing line, his pipe is ever present. He points to it with pride, as it was a gift from Dr. Fred Morris, a noted surgeon of Pittsburgh.

* * *

Looking a few years ahead, the medical profession in Decatur county need not worry about new blood to carry on the traditions established by the present generation of physicians, for J. M. Kercheval, the son of Dr. C. F. Kercheval, of Greensburg, will complete his six-year course at Indiana University this June, while Richard Good, son of Dr. D. W. Good, of Newpoint, is completing his pre-medic course at Indiana this spring. Richard is treasurer of his fraternity of Bloomington.

If you want to get a real "rise" out of Dr. I. M. Sanders, ask him to tell you the story of his Hindu doctor, who upon investigation turned out to know far more about matters Ethiopian than of Indian mysteries.

ABSTRACTS

GLANDULAR THERAPY

Frank Billings, Chicago (*Journal A. M. A.*, Sept. 27, 1924), states that at the present time, substitutional organotherapy alone seems to be based on substantial grounds, and this principle is of practical value only to a limited degree. The use of thyroid gland or of thyroxin in proper doses will overcome the results, partially or wholly, of deficiencies of the thyroid gland secretion. Insulin used daily and properly will restore and maintain carbohydrate metabolism in conditions due to deficiency of the internal secretion of the pancreas. But substitutional organotherapy in morbid conditions of man or animals due to deficient secretion of the glands of internal secretion, by the oral administration of the fresh gland tissues or of dried or otherwise prepared glands, is in an unsatisfactory status. This is due in part to the fact that the active principles of the secretions of all the glands of internal secretion, with the exception of the thyroid, are apparently destroyed by the digestive juices of the stomach and bowel. Pituitary extract and epinephrin must be considered as pharmacodynamic preparations, because, up to the present time, the various preparations of pituitary and epinephrin do not appear fully to take the place of the glands themselves. It must be said, however, that pituitary extract appears to substitute for the gland for temporary periods. With the exception of thyroxin and insulin, the use of preparations of other glands of internal secretion, hypodermically or intravenously, has not afforded uniform and consistent results that can be definitely ascribed to the specific effects of the internal secretions of the glands. However, it must be stated that the possible good effects of the administration of preparations of the glands of internal secretion subcutaneously or intravenously may be masked by the reactions of the body to a foreign protein administered in the same manner. Substitutional organotherapy by the transplantation of fresh gland substance has been successfully accomplished, but the length of time during which engrafted tissue retains its specific character and function is variable and uncertain, and the results have been of short duration and of limited value. The present furor of transplantation of the gonads for rejuvenation, and especially for the restoration of sexual potency in senile individuals, Billings says is attended with such manifest lack of scientific experimental spirit and methods and is so tinctured with commercialism as to make this practice under present knowledge a professional disgrace. Substitutional organotherapy is embarrassed, too, by the difficulties attending the recognition and interpretation of the symptoms and signs due to the deficiency of the secretion of a single gland. These difficulties are intensified in the case of syndromes due to multiglandular deficiencies and in the necessary differentiation between the morbid conditions due to deficiencies of secretions of the internal glands and deficiencies in growth, development and other morbid condition due to want of sunlight and a properly balanced diet. At present, substitutional organotherapy in the treatment of conditions alleged to be due to deficiencies of the glands of internal secretion, with the exception of the thyroid and pancreas, cannot be utilized in general practice with the hope that definite results will be obtained. The brilliant results attending the use of preparations of the thyroid including thyroxin and of insulin afford reasonable belief that other important glands of internal secretion will be found to yield active principles that will arm us with specific agents for the correction of morbid conditions due to deficiencies of secretion of the respective glands. In the meantime, recognizing our responsibility to the public in this as in other matters that affect the

welfare of the people, we should not continue to patronize and support those manufacturers of glandular remedies who make statements of specific virtues possessed by pluriglandular preparations that are without foundation of fact. The existence and continued pernicious influence of the manufacturers of glandular products who publish statements of their therapeutic value without the support of established physiological and clinical facts will depend on whether the medical profession will patronize them. A decided forward step would be taken if physicians were to limit their use of animal organ preparations to those admitted to the United States Pharmacopeia and the current edition of New and Nonofficial Remedies.

THE TREATMENT OF FIBROMYOMAS OF UTERUS AND OTHER CAUSES OF MENORRHAGIA

The treatment of fibromyomas of uterus and other causes of menorrhagia by intensive roentgen-ray therapy is discussed by Louisa Martindale, London, England (*Journal A. M. A.*, Oct. 4, 1924). In about 60 per cent of cases of fibromyomas needing treatment, Martindale still does either a subtotal or panhysterectomy, or abdominal or vaginal myomectomy. In all operable cases of carcinomas of the body of the uterus and of the cervix uteri, she operates, using roentgen rays afterward. In inoperable cases, without cachexia, she uses deep roentgen-ray therapy. In deciding between the two lines of treatment, she is influenced chiefly by: 1. The physical signs and symptoms and actual diagnosis of the case. 2. The general condition of the patient. She uses a modification of the Erlangen technic. The chief characteristic of the new technic is precision of dosage. Martindale works with 5,200 interruptions in the gas break, with an amperage of from six to seven amperes, and a steady two milliamperes through a Coolidge or boiling water tube. Intensive roentgen-ray therapy was given in eighty-seven cases. In only four cases was there failure. It seems to Martindale that roentgen-ray treatment for these conditions, is a more or less ideal treatment to offer patients—a treatment eliminating nervous shock, the inconveniences of an anesthetic, long convalescence and big nursing home fees—and a treatment leaving the patient fit and able for her usual life, and feeling better in health than before.

PRIMARY CHANCER OF THE PALPEBRAL CONJUNCTIVA

The case reported by W. P. Ling, Peking, China (*Journal A. M. A.*, August 16, 1924), is of especial interest for two reasons: It is a double infection in which the tarsal conjunctiva and the skin of the forehead are simultaneously infected. The diagnosis of the case was not an easy one. This was so for the following reasons: The patient gave a history of previous syphilitic infection in 1914; therefore, it was thought at first that it might be a gumma. However, the subsequent course of the lesion, namely, the rapid healing of the ulcer under the influence of neoarsphenamin and mercury, made possible a definite diagnosis of primary chancre. Furthermore, the fact that the Wassermann reaction was reported by the patient's physician to be positive one month after the appearance of the sores, and that it became negative after two months of vigorous treatment, further confirmed the diagnosis.

REINFECTION IN SYPHILIS

A study was made by James Russell Driver, Cleveland (*Journal A. M. A.*, Nov. 29, 1924), of thirteen cases of reinfection with syphilis seen among approximately 5,000 syphilitic patients. Outside of one old syphilitic patient who had been infected seven years before, all of this group of reinfection were patients diagnosed while still in the primary, or perhaps better still, the early stage of the disease. The patients reported at the following number of weeks after the exposure: 3, 3, 3, 4, 4½, 5, 7, 7, 8, 1, 12 and 12. These thirteen cases of syphilitic reinfection satisfy quite closely the requirements laid down to constitute a true infection. A diagnosis was

made in twelve of these cases and treatment started at extremes of from three to twelve weeks, with a median of six and one-half weeks after exposure. Only one old syphilitic patient was treated. In his case, treatment was instituted seven years after infection. These patients, on an average, received from six to twenty-four injections of arsphenamin, with a median of twelve injections, and from fifteen to fifty mercuric salicylate injections, with a median of twenty-five injections, in order to render them bacteriologically free from spirochetes and in a position to get a new syphilitic infection. No hard and fast rule is laid down as to the amount of treatment necessary to cure a case of syphilis. Each case is one unto itself, but in this series of early diagnosed syphilitic cases, the foregoing treatment was apparently sufficient. The period of time that intervened between the first and the second infection varies from one month to 120 months, with a median of fifteen months. I believe that this indicates that the first syphilitic infection confers no immunity on its host for any period afterward. As soon as he is free from the first infection, he is open to another one, if exposed. From reports of others and from this series, I believe that the curability of syphilis is definitely possible, provided: (a) an early diagnosis can be made by the dark field, and (b) early, vigorous treatment can be instituted with arsphenamin and mercury injections. With modern therapy, syphilitic reinfection is probably more frequent than we suspect, and if more syphilitic patients could be closely followed over a period of years, such would be found to be the case.

INFANTILE PARALYSIS IN ELDERLY PERSONS

A. L. Hall, Fulton, New York (*Journal A. M. A.*, Nov. 29, 1924), relates the case of a man, aged 80, of good habits and previous good health, who was taken with a severe headache and some nausea, accompanied by chilliness, fever, sore throat, stiffness of the neck and upper dorsal region, difficulty in swallowing and systemic weakness. He was unable to stand. He was ailing for about three days before taking to bed. The temperature was 103.5 F.; the pulse, 116, and the respiration, 30. The patient was very nervous and apprehensive; the eyes were glassy and staring; he was unable to swallow food or liquids; there was extreme rigidity of the neck and upper dorsal spine, with marked tenderness over these regions; the throat was sore, the mucous membrane being moderately congested and slightly swollen and indicative of a relaxed state of the throat structures rather than of acute inflammatory action; there were numerous small swollen glands in the cervical region; there was muscular tremor of face and upper extremities; he sat erect in bed, owing to a sense of suffocation and a fear that he might choke to death; the patellar reflexes were diminished; the throat reflexes were not easily excited, and there had been obstinate constipation for several days. For the next three days these symptoms persisted, and he could not be induced to take any food or swallow liquids. The temperature dropped slowly and on the fifth day became normal, although the pulse and respiration rates were higher than usual. Recovery was slow, the patient being confined to bed for three weeks. He has gradually improved in general strength; the tonicity of the lower extremities is increased, the patellar reflexes being now normal, and he can easily swallow solid food; but liquids are still swallowed with some difficulty. He has never presented any evidences of organic paralysis, recent or remote, nor is there any history of previous motor impairment, and, apparently, his difficulty in swallowing and other related symptoms were due to an acute systemic infection which escaped detection. However, the symptoms suggested infantile paralysis. Hall has seen several other similar cases.

RADIUM IN OPHTHALMOLOGY

Laura A. Lane, Minneapolis (*Journal A. M. A.*, Dec. 6, 1924), asserts that radium is of distinct value in treating many benign affections of the eye. It is a specific in

vernal conjunctivitis, trachoma and certain lid lesions. Radium gives promise of being a valuable aid in the treatment of ulcers and opacities of the cornea, and probably in some affections of the deeper eye structures. A better knowledge of dosage, screening and methods of application of radium in order to obtain maximum results, together with more uniform methods of reporting cases, is highly desirable. Radium offers less scarring, greater freedom from pain, less loss of time from work, and more slightly results than surgery in many diseases about the eyes and head. Every unnecessary operation does some harm to medical science. Attention must be paid to the physical condition of patients undergoing radium therapy. Thirty different patients, all under observation from six months to two years, are reported on in this study (except one). Report is withheld of other patients under observation less than six months. This series represents a total of thirty-nine cases and seventeen different conditions. In more than two years' experience, no burns or other untoward effects have yet appeared. No other treatment has been used except atropin, warm boric acid for cleansing secretion, mercurochrome-220 soluble in one ulcer case, external heat as indicated, and antisiphilitic treatment in the interstitial patient while the radium was being used. In many of these patients the results have been far more satisfactory than with the usual methods of treating such conditions and far more agreeable to the patients, as the treatments have been painless.

ROENTGEN RAY IN DIAGNOSIS OF PERICARDITIS

The experimental work done by George W. Holmes, Boston (*Journal A. M. A.*, Nov. 29, 1924), consisted of studies made on fresh hearts suspended in mediums of varying specific gravity, the lightest being air and the heaviest being salt solution with a specific gravity of 1.036. The heart was visible as a shadow of increased density until the specific gravity surrounding the medium reached 1.000, at which time it disappeared, and again became visible as a shadow of diminished density when the specific gravity reached 1.036. The shadow of the heart itself was not visible when the density of the medium corresponded to that of the pericardial effusions. These experiments, with a careful study of the cases examined and those reported in the literature, seem to prove that it is not possible to visualize the heart within a fluid-filled pericardium, and that, in cases in which the heart seems to be visible, it is probable that the fluid is in the mediastinum and not in the pericardial sac. A second group of experiments consisted in the injection of the pericardium in the cadaver. This confirmed the work of Morris and Bader and others, who have found that the earliest changes in the shape of the heart shadow are seen in the region of the sinus at the base of the heart and along the posterior border. In the anteroposterior view of the shadow, there is a widening of the supracardiac area and obliteration of the normal curve of the left auricle with the injection of about 200 c.c. Amounts of fluid less than this produced no appreciable change. As the amount of fluid increases, the change in shape of the heart shadow becomes general. The clinical data were obtained from the records of sixty cases at the Massachusetts General Hospital which were diagnosed as probable pericarditis. From this material, and a review of the literature, it was concluded that the roentgenographic findings in their order of importance in pericarditis with effusion are: the heart shadow; change of shape with the change of position of the patient; obliteration of the normal outline of various chambers of the heart; changes in the shape of the angle formed by the posterior border of heart, the diaphragm and the spine, and faint or absent pulsations. Holmes has examined 2,950 patients for possible disease of the heart, and found roentgen-ray evidence of disease of the pericardium in thirty-six. Of these thirty-six cases, eight were proved to have fluid within the pericardium

by puncture or necropsy. In thirteen additional cases, the clinical findings were not confirmed. From these data, it would seem that the roentgen-ray examination is of considerable value in making a positive diagnosis of pericarditis, and that negative roentgen-ray findings make a negative diagnosis probable.

PHYSIOLOGIC EFFECT OF MASSAGE

In connection with a study made by Ralph Pemberton, F. A. Cajori and C. Y. Crouter, Philadelphia (*Journal A. M. A.*, Nov. 29, 1924), of arthritis and rheumatoid conditions, analysis has been attempted of some of the measures known to benefit them. Conspicuous among these measures are exercise, the application of external heat and massage. Studies were therefore undertaken on five arthritic patients, sufficiently active and robust to permit of general and severe massage, in respect to the hydrogen-ion concentration, carbon dioxide content, oxygen content, oxygen capacity, percentage oxygen saturation, inorganic phosphorus and lactic acid of the venous blood before and after massage, and also the hourly volume, hydrogen-ion concentration, titratable acid, organic acids and inorganic phosphorus of the urine before and after massage. It is to be noted that massage of voluntary muscles, even though vigorous, is not accompanied by the evidences of lactic acid production and acidosis, which accompany relatively mild active exercise of short duration, or by the evidences of loss of acid and alkalosis, which follow exposure of the body to external heat. Massage can be used as a partial substitute for active exercise in many conditions, but its benefit must be due chiefly to some mechanism other than that reflected in the chemical changes accompanying exercise. The available evidence suggests that these benefits are referable to changes in the circulation, especially capillary. The favorable influences on the rheumatic syndrome of exposure to external heat, massage and active exercise apparently find their chief explanation in their influence on the circulation, including the capillary beds. The corollary to this is that a disturbance of the circulation constitutes part of the underlying pathologic change in rheumatic and arthritic conditions.

A REVIEW OF ONE HUNDRED CASES OF CARCINOMA OF THE CERVIX

The report made by Lawrence A. Pomeroy and Abraham Strauss, Cleveland (*Journal A. M. A.*, Oct. 4, 1924), is based on 100 consecutive cases of carcinoma of the cervix in patients applying for radium treatment. The special purpose of the study in this series of cases was to find out whether the microscopic examination of tissue removed at the time of the original examination or treatment would enable one to make a prognosis with accuracy. The best results from treatment were obtained in the spinal cell type with pearls and in the adenocarcinomas. A rather surprising feature of these results is the large proportion of palliations, 71 per cent., obtained in the transitional type for the six-month period, and the rapid decrease of this percentage in the other periods. This suggests that the cells of this group may be quite sensitive to radium, and brings up the question of the advisability of repeating the irradiation in even apparently quiescent cases of this group.

ENTROPION AND ECTROPION OF LOWER LID

J. E. Jennings, St. Louis (*Journal A. M. A.*, Oct. 25, 1924), describes his operation for entropion. One should first estimate how much the lid must be drawn down to eliminate the entropion and make the length of the incision just twice that amount. If the lid turns in one-fourth inch, then the incision should be one-half inch long. The incision is a vertical one, commencing just below the lid margin and extending downward one-half inch, dividing skin and superficial fascia. Without undermining the skin, a vertical suture is introduced

through the skin above the upper extremity of the incision, carried down along the bottom of the wound and coming out through the skin just below the lower extremity of the incision. When this suture is tied, the margin of the lid is drawn down, and what before was a vertical wound now becomes a horizontal one, which is closed by two more vertical sutures, one placed on each side of the central one. If the length of the incision has been estimated correctly, the lid margin will have regained its normal position and perhaps show a trace of ectropion, which will disappear in a few days. The operation is horizontal and should be made a little longer to get a decided amount of overcorrection. The horizontal incision should be placed near the lid margin under the most pendent part of the lid. When the central suture is tied, the ends of the incision are drawn together, forcing up the margin of the lid and changing the horizontal wound into a vertical one, which is closed by two more sutures, one placed on each side of the central one. As there may be considerable tension on the sutures which might cause them to tear out, they should be supported by strips of adhesive plaster until healing takes place. I have used this operation for two years and have had uniformly good results. I do not recommend it in cases of more marked ectropion due to wounds and burns in which there is a considerable amount of scar tissue. I tried it in two cases, undermining the scar tissue; but despite the support of adhesive strips, the stitches tore out and the results were poor.

TRUTH ABOUT MEDICINES

NEW AND NONOFFICIAL REMEDIES

SCHICK TEST-LEDERLE (New and Nonofficial Remedies, 1924, p. 335).—A diphtheria immunity test, also marketed in packages of one vial containing diphtheria toxin sufficient for 50 tests; in packages of one vial containing diphtheria toxin sufficient for 100 tests. Lederle Antitoxin Laboratories, New York.

ANTIDYSENTERIC SERUM-P. D. & Co. (New and Nonofficial Remedies, 1924, p. 301).—An antidyenteric serum, also marketed in packages of one syringe containing 20 Cc. Parke, Davis & Co., Detroit.

BARBITAL-MERCK.—A brand of barbitol-N. N. R. (New and Nonofficial Remedies, 1924, p. 62). Merck & Co., New York.

BARBITAL SODIUM-MERCK.—A brand of barbitol sodium-N. N. R. (New and Nonofficial Remedies, 1924, p. 63). Merck & Co., New York.

CARBON TETRACHLORIDE-MERCK HIGHEST PURITY "C. P.".—A brand of carbon tetrachloride medicinal-N. N. R. (New and Nonofficial Remedies, 1924, p. 84). Merck & Co., New York.

CARGENTOS OINTMENT, 5 PERCENT.—An ointment composed of carentos (formerly marketed as carentos new process, New and Nonofficial Remedies, 1924, p. 343), 1 part; anhydrous woolfat 19 parts. The H. K. Mulford Co., Philadelphia.

CARGENTOS CAPSULES, 3 GRAINS.—Capsules, each containing carentos (formerly marketed as carentos new process, New and Nonofficial Remedies, 1924, p. 343), 3 grains. The H. K. Mulford Co., Philadelphia.

DIPHTHERIA TOXIN-ANTITOXIN MIXTURE NEW FORMULA (PARK BANZHAF'S, 0.1 L+ DOSE).—A diphtheria toxin antitoxin mixture (New and Nonofficial Remedies, 1924, p. 298), each Cc. of which constitutes a single dose, and contains 0.1 lethal dose of toxin properly neutralized with the necessary amount of diphtheria antitoxin; marketed in packages of three 1 Cc. vials representing one immunizing dose; in packages of thirty 1 Cc. vials representing ten treatments; also in packages of one 30 Cc. vial representing three treatments of three doses each. The H. K. Mulford Co., Philadelphia.—(*Journal A. M. A.*, Nov. 1, 1924, p. 1431).

NUTRIVOID FLOUR.—A vegetable product composed

chiefly of unassimilable carbohydrates (mannans). It contains fat, 0.92 percent; protein, 4.31 percent; non-utilizable carbohydrates, 85.37 percent. Nutrivoid flour is used as a means of filling out restricted diets, as in the Allen treatment of diabetes. It is a non-nutritive food substance used to give bulk to foods, thus serving to satisfy hunger without furnishing nourishment. Nutrivoid Diabetic Flour Co., New York.

INSULIN-SQUIBB.—A brand of insulin (New and Nonofficial Remedies, 1924, p. 149). It is supplied as insulin-Squibb 10 units (5 Cc. vials containing 10 units in each Cc.), and insulin-Squibb 20 units (5 Cc. vials containing 20 units in each Cc.). E. R. Squibb & Sons, New York.—(*Journal A. M. A.*, Nov. 8, 1924, p. 1509.)

LACTO-DEXTRIN.—A mixture composed of lactose, 73 percent; dextrin, 25 percent, and desiccated lemon juice, 2 percent. The administration of lacto-dextrin is proposed as a means of promoting the growth of the normally present aciduric organisms *B. acidophilus* and *B. bifidus* in the alimentary tract, so as to make them the predominating organisms. It is claimed that this increased growth of acidophile organisms prevents the undue development of putrifactive bacteria and their products. It is claimed that this change in the character of the intestinal flora brings about increased intestinal activity and that this in turn prevents or ameliorates certain conditions commonly ascribed to putrifactive products in the colon. Battle Creek Food Co., Battle Creek, Mich.

PITUITARY EXTRACT-LILLY (OBSTETRICAL).—A slightly acid aqueous solution containing the water soluble principle or principles of the fresh posterior lobe of the pituitary body of cattle. It is tested for oxytocic action on the isolated uterus of the virgin guinea-pig against a standard solution prepared from defatted desiccated posterior lobe powder and adjusted so that its strength is equal to that of a 5 percent solution of the fresh posterior lobe of the pituitary gland. For a discussion of the actions and uses, see general article, Pituitary Gland, New and Nonofficial Remedies, 1924, p. 225. Pituitary extract-Lilly (obstetrical) is marketed in ampules containing 0.5 Cc. and 1 Cc., respectively. Eli Lilly and Co., Indianapolis.

PITUITARY EXTRACT-LILLY (SURGICAL).—A slightly acid aqueous solution containing the water soluble principle or principles of the fresh posterior lobe of the pituitary body of cattle. It is tested for its pressor action on the blood pressure of mammals and for oxytocic action on the isolated uterus of the virgin guinea-pig against a standard solution prepared from defatted, desiccated posterior lobe powder and adjusted so that its strength is equivalent to that of a 10 percent solution of the fresh posterior portion of the pituitary gland. For a discussion of the actions and uses, see general article, Pituitary Gland, New and Nonofficial Remedies, 1924, p. 225. Pituitary extract Lilly (surgical) is marketed in ampules containing 1 Cc. Eli Lilly & Co., Indianapolis.

CULTURE BACILLUS ACIDOPHILUS-MEDICAL LABORATORIES, INC..—A broth culture of *Bacillus acidophilus* in bottles containing about 120 Cc. It contains from 250 to 500 million of viable organisms (*B. acidophilus*) per Cc. at the time of sale. For a discussion of the actions and uses, see Lactic Acid-Producing Organisms and Preparations (New and Nonofficial Remedies, 1924, p. 169). Medical Laboratories, Inc., New York.—(*Journal A. M. A.*, Nov. 15, 1924, p. 1589).

INTARVIN.—An artificial fat made from fatty acids having an odd number of carbon atoms. Intarvin is composed of the glyceryl esters of margaric acid admixed with small quantities of the glyceryl esters of pentadecylic, palmitic and stearic acids, 82 percent; liquid petrolatum, 12 percent; water, 6 percent. Intarvin is proposed for use in diabetes mellitus on the ground that fatty acids containing an odd number of carbon atoms do not yield ketone bodies on oxidation in the normal or diabetic organism, and that for this reason it may with advantage replace the natural fats in the diet. The

evidence indicates that intarvin does not increase the production and may reduce the production of ketones in certain cases; that it has a protein sparing-action; that sugar is formed from it in small amounts only; that it has little if any beneficial effect on carbohydrate metabolism in the human organism; that its unpalatable taste is a drawback to its use, and that it may prove useful in the treatment of diabetes in certain cases. Intarvin Co., Inc., Long Island City, N. Y.

QUININE ETHYL CARBONATE-P. W. R.—A brand of quinine ethyl carbonate-N. N. R. (see New and Non-official Remedies, 1924, p. 267). Powers-Weightman-Rosengarten Co., Philadelphia.—(*Journal A. M. A.*, Nov. 22, 1924, p. 1685).

SECACORNIN.—ERGOTIN-ROCHE.—A solution of the active principles of ergot in a menstruum consisting of distilled water, glycerin and 7.5 percent of alcohol. One cubic centimeter secacornin corresponds to 4 Gm. ergot, U. S. P. The actions and uses of secacornin are the same as those of ergot. It may be given by intramuscular injection. Hoffmann-LaRoche Chemical Works, New York.—(*Journal A. M. A.*, Nov. 29, 1924, p. 1769.)

PROPAGANDA FOR REFORM

CLEERO.—This is labeled "the vanishing shampoo." It is another piece of cosmetic quackery put out by the Van Ess Laboratories, Chicago. Cleero is sold with the claim that the use of soap on the hair is dangerous and that "the free alkali present in most soaps" makes them still worse. The A. M. A. Chemical Laboratory analyzed Cleero and found it to be essentially a perfumed watery solution of soap with free alkali and glycerin.—(*Journal A. M. A.*, Nov. 15, 1924, p. 1607.)

LAVEX.—Lavex, of the Lavex Chemical Company, Kansas City, Mo., appears to be a new name for what used to be called "Maignen Antiseptic Powder," put out some ten years ago by the "Maignen Institute for the Study of Bacterial Diseases" of Philadelphia. At that time, it was claimed to be a mixture of calcium hydroxide, sodium carbonate, aluminum sulphate and boric acid. The Council on Pharmacy and Chemistry reported on Maignen Antiseptic Powder in 1914. In 1915, the government declared Maignen Antiseptic Powder misbranded.—(*Journal A. M. A.*, Nov. 29, 1924, p. 1787.)

WHY TUCKER'S ASTHMA SPECIFIC?—For some years there has been put out from Mount Gilead, Ohio, a nostrum known as "Tucker's Asthma Specific." The nostrum, which is sold on the mail order plan, declares on the label the presence of 5 grains of cocain to the fluidounce. It has been analyzed at various times and substantial amounts of cocain have been found. A case of cocain poisoning from the preparation has been reported. The nostrum has been declared unsalable in the state of Massachusetts because of its cocain content. In 1910, the U. S. Department of Agriculture issued a bulletin of "Habit-Forming Agents" in which a warning against the Tucker preparation was included. To learn how the Tucker concern can send out a cocain-containing mixture without violating the Harrison Narcotic Law, an inquiry was sent to Washington. The Commissioner of Internal Revenue replied that, while Tucker's Asthma Specific carried a label admitting the presence of cocain, the facts were that before the remedy reached the public, the cocain became hydrolyzed and there was either no cocain or but an infinitesimal quantity. The Commissioner also declared that the mail-order distribution served "a great humanitarian cause" and, therefore, it had been decided by the Treasury Department to take no action enjoining its distribution. Further correspondence brought the statement that samples of the Tucker Remedy taken on the market, when analyzed, showed either no cocain as such, or not to exceed one-half grain to the fluidounce. Even if one admits the "humanitarian" motives of the exploiters of this "quack medicine" and the various other claims made by the Treasury Depart-

ment, the fact still remains that the sale of the Tucker remedy seems to be an obvious violation of one or two federal laws. If it contains no cocain, then it is misbranded. If it contains cocain or a derivative of cocain, then its sale violates the Harrison Narcotic Law.—(*Journal A. M. A.*, Nov. 1, 1924, p. 1435.)

B. PAUL'S HENNA AND LIQUID HAIR DYES.—Two hair dyes are put out by one Paul Balme, who does business in New York City under the name "B. Paul." One of these dyes is known today as "Paul's Henna" and is a powdered mixture. The other, put out by the same man, is called "B. Paul's Liquid Mixture." B. Paul's Henna comes in a tin can and is claimed to be " * * * a powdered preparation composed of pulverized henna and herbs which will color gray hair to any one of our fourteen different shades." Accompanying this powder is a small envelope containing a white powder and labeled "B. Paul's Developer; to set the shade." For use, the hair must be washed, the powder applied in the form of a thick paste and left on for from thirty minutes to two hours; the hair is then rinsed and treated with a solution of the "developer." The A. M. A. Chemical Laboratory reports that the "henna" powder consists essentially of dried plant leaves, pyrogallol, iron and copper compounds, and that the "developer" is sodium perborate. The Laboratory also examined the liquid preparation. The preparation was contained in two bottles: one was essentially a solution of the well-known copper ammonium sulphate, the other was a solution of pyrogallol.—(*Journal A. M. A.*, Nov. 1, 1924, p. 1449.)

AOLAN NOT ACCEPTED FOR N. N. R.—The Council on Pharmacy and Chemistry reports that Aolan is prepared from milk freed from fat and is claimed to be a germ-free and toxin-free solution of lactalbumen, manufactured in Germany for the H. A. Metz Laboratories, Inc. The use of Aolan is recommended by intramuscular and intravenous injection in a large number of conditions. The Council found Aolan inadmissible to New and Nonofficial Remedies because it is marketed under unwarranted therapeutic claims. When the Metz Laboratories was informed of the Council's decision, the firm sent a detailed reply. After considering this reply, the Council decided that the rejection of Aolan should stand. The Metz Laboratories, Inc., does not hold itself responsible for the many and varied claims made for non-specific protein therapy and the uses of Aolan in connection therewith which have appeared in print. Although the claims advanced by the American agent are relatively moderate, they are still unacceptable because they are unsupported by controlled clinical evidence from reputable observers.—(*Journal A. M. A.*, Nov. 8, 1924, p. 1526.)

POLLANTIN NOT ACCEPTED FOR N. N. R.—Pollantin Liquid, Pollantin Ointment and Pollantin Powder are hay-fever "remedies" manufactured in Germany and marketed in this country by Fritzsche Bros., Inc., New York. According to the advertising, it is prepared from the serum of horses inoculated with "the pollens of various species of ragweed and goldenrod, and of graminæ, such as rye, Indian corn, meadow foxtail, timothy grass, etc.," and is suitable for all forms of hay-fever. An enormous amount of work has been published controverting the claimed value of this serum. The principle on which Pollantin was founded has been found to be unsound, and there is no acceptable evidence to show that hay-fever is due to a toxin in pollen. The Council on Pharmacy and Chemistry found Pollantin Liquid, Pollantin Ointment, and Pollantin Powder inadmissible to New and Nonofficial Remedies because the claims for their value are unfounded and they appear to be unscientific and useless articles.—(*Journal A. M. A.*, Nov. 8, 1924, p. 1526.)

GLYEUTHYMENOL NOT ACCEPTED FOR N. N. R.—According to Nixon, Stuart & Barker, Glycerthymenol is a scientifically formulated combination of eucalyptol, thymol, menthol, sodium benzoate and zinc sulphate with

a glycerin base." Glyeuthymenol is to be applied to the cervix by means of a special applicator and, according to the label, it is "indicated in leucorrhea and as a vaginal antiseptic and prophylactic." The advertising designates Glyeuthymenol as a "vaginal prophylactic" and stresses its use as a preventive of gonorrhea and as a contraceptive. The Council holds Glyeuthymenol an unscientific mixture that is sold with claims that are misleading and unwarranted and the use of which is inimical to the public health.—(*Journal A. M. A.*, Nov. 15, 1924, p. 1606.)

HEXAMETHYLENAMIN.—Like the earlier attempts to "disinfect" the alimentary tract through ingestion of selective germicidal substances, the efforts to render the entire organism free from micro-organism by a similar therapeutic procedure have not been attended with conspicuous success. Hexamethylenamin was early hailed as promising success in these endeavors. It has been recommended as an antiseptic agent for virtually all the body fluids. It was soon demonstrated, however, that bacterial growth is not prevented by it, even in proportions much higher than could be found anywhere in the body. This important evidence rendered it improbable that the administration of hexamethylenamin can exert marked antiseptic effects in the tissues. In an acid solution hexamethylenamin disintegrates into ammonia and formaldehyd, and to the latter substance are doubtless due the beneficial therapeutic results experienced in the treatment of urinary infection. A recent study demonstrates that the alleged beneficial effects of hexamethylenamin systemically in various infectious diseases cannot be explained by the presence of adequate liberation of formaldehyd in the circulation and tissues. The drug itself is not antiseptic; and the hope of securing systemic antiseptis through its use seems forlorn. Its one field of action seems to be in pathologic conditions in the urinary tract, and it is necessary that the urine be markedly acid.—(*Journal A. M. A.*, Nov. 22, 1924, p. 1688.)

SAN-GRI-NA.—"San-Gri-Na is the formula of a French physician. It has been used in Europe by millionaires, actresses and hundreds of fat men and women because it is simple, easy, pleasant and harmless." Thus runs part of the advertising claptrap for San-Gri-Na, one of the recent entrants to the "obesity cure" field. The preparation is put out by the "Scientific Research Laboratories," New York City. The newspaper advertisements convey to the obese public the idea that it is unnecessary to exercise or diet, the only desideratum being the purchase of San-Gri-Na. When the stuff has been bought, however, the purchaser finds that in addition to San-Gri-Na she should take the juice of one lemon in a glass of warm water every morning, chew her food very thoroughly, eat only two or three light meals a day, sleep not more than six or seven hours, do a reasonable amount of walking, take no liquid with meals, avoid starches, fat and candy. From the analysis of San-Gri-Na in the A. M. A. Chemical Laboratory, it appears that the product consists of tablets containing sulphur and cream of tartar with a small quantity of phenolphthalein as their essential constituents.—(*Journal A. M. A.*, Nov. 22, 1924, p. 1763.)

PIXALBOL NOT ACCEPTED FOR N. N. R.—The Council on Pharmacy and Chemistry reports that Pixalbol is the name under which E. Bilhuber, Inc., New York, markets a colorless tar preparation which is manufactured by Knoll & Co., Ludwigshafen a. Rh., Germany. It is claimed to be identical with the preparation formerly sold in the United States by Knoll & Co. as Anthrasol. The trademark on the word "Anthrasol" was seized by the U. S. government during the late war and sold to

the Chemical Foundation, Inc. The product may be marketed in the United States under the name Anthrasol, only with the consent of the holders of the rights to the trademark. In consideration of the abuses which are connected with the application of proprietary names to medicinal articles, the Council recognizes such names only when this is in the interest of the public welfare. Since the product in question was introduced under the name Anthrasol, the Council decided that it was not in the interest of medicine that further proprietary names be applied to it. The Council informed E. Bilhuber, Inc., that consideration will be given the product if it is marketed as Anthrasol under license from the Chemical Foundation, Inc., or under a satisfactory descriptive non-exclusive name.—(*Journal A. M. A.*, Nov. 22, 1924, p. 1704.)

PAINODYNES.—According to the label on the bottle, Painodynes, sold by the Wm. A. Webster Co., Memphis, Tenn., consists of "An organic compound containing neurodyne 5 grains, theine citrated $\frac{1}{2}$ grain combined with triple bromides $\frac{1}{2}$ grain." The firm states that neurodyne is "Ortho Hydroxybenzoic Acetic Acid Ester" and that the compound used is of the highest degree of purity. "Ortho Hydroxybenzoic Acetic Acid Ester" is a ridiculously long drawn out name for acetylsalicylic acid. Tests made in the A. M. A. Chemical Laboratory indicated the presence of this substance in Painodynes; the tests did not confirm the claim that the product used was of the highest purity. Furthermore, the Laboratory was unable to find any citrate, although "theine citrated" is. These discrepancies are not surprising, as the firm has pleaded guilty a number of times to the charge of adulteration and misbranding. Painodynes belongs to the class of irrational shotgun mixtures marketed with unwarranted claims.—(*Journal A. M. A.*, Nov. 22, 1924, p. 1705.)

PEPTONE SOLUTION FOR HYPODERMATIC USE (ARMOUR) NOT ACCEPTED FOR N. N. R.—Peptone solution for hypodermatic use is marketed by Armour & Company in ampules containing 1 cc. of a 5 percent solution of Armour's Special Beef Peptone. The product is advertised "as an aid in immunization, hypodermatically and orally" and the advertising refers in the main to the firm's peptone solution for hypodermatic injection, although its intravenous use is also dealt with. Emphasis is given to the use of peptone in the treatment of asthma. Reference is also made to its use in such conditions as hay-fever, skin affections associated with asthma, cyclic gastro-intestinal attacks, urticaria, coryza of the spasmodic type, migraine angioneurotic edema and pruritus. Intravenous medication—some wise and some foolish—has greatly increased in recent years, and it is not surprising that foreign proteins should be used in the hope of accomplishing something in conditions such as those for which the Armour preparation is advertised. It is a serious question whether the best interests of medicine are served by the recognition of methods, the real value of which is not established, the limitations and dangers of which are not understood, and the general employment of which contributes to the profits of those who sell the product, rather than to a knowledge of the actual value of the product. For this reason, the Council on Pharmacy and Chemistry voted not to accept Peptone Solution for Hypodermatic Use (Armour) because it is an unstandardized mixture, and because its acceptance would be taken as an endorsement of the use of peptone for intravenous use, presumably for all the conditions in which its employment has been recorded. The Council wishes it understood that, in not accepting this preparation, it has no intention of opposing the legitimate use of protein preparations by those who wish to study non-specific protein therapy. The Council reports that Armour & Company appeared willing to undertake the standardization of the protein, but that the rejection of the preparation was affirmed because its value has not been established.—(*Journal A. M. A.*, Nov. 29, 1924, p. 1786.)



HEADQUARTERS
FOR THE ENDOCRINES

Preserve the Active Principles

The Posterior Pituitary substance, under the Armour label, is made from material that has not come in contact with ice and water. Water leaches out the active principle and vitiates the therapeutic value.

POSTERIOR PITUITARY

Powder and 1/10 Grain Tablets

Armour's facilities for collecting and handling the endocrines are unequalled; supplies plentiful; laboratories with chill rooms near abattoirs; careful men whose sole work is in organotherapy.

Specify *Armour's* when you require

PITUITARY, THYROID, SUPRARENAL, CORPUS LUTEUM

and other preparations of the kind.

ARMOUR AND COMPANY
CHICAGO

Booklets on the
Endocrines



WALLACE-SOMERVILLE SANITARIUM



Succeeding the Pettey & Wallace Sanitarium

MEMPHIS, TENN.

WALTER R. WALLACE, M.D.
WILLIAM G. SOMERVILLE, M.D.

FOR THE TREATMENT OF

**DRUG ADDICTIONS, ALCOHOLISM
MENTAL AND NERVOUS DISEASES**

Located in the Eastern suburbs of the city.
Sixteen acres of beautiful grounds.
All equipment for care of patients admitted.

Louisville Neuropathic Sanatorium

INCORPORATED

1412 South Sixth Street, Louisville, Kentucky

An ethical institution with modern equipment for the care and treatment of Mental and Nervous Diseases. Situated in residence portion of the city, yet quiet and retired. Rates furnished upon request.

W. E. GARDNER, A.B., M.D.

Medical Director

W. E. BENDER, M.D.

Resident Physician



(Continued from page 448)

Testis, The Human (Thorek).....	402
Tuberculosis of Children—Its Diagnosis and Treatment (Much)	39
U	
Urology, Modern (Cabot).....	402

BOOK REVIEWS

ANATOMY OF THE HUMAN BODY. By Henry Gray, F.R.S., lecturer on anatomy at St. George's Hospital medical school, London. Twenty-first edition, thoroughly revised and re-edited. Illustrated with 1283 engravings. Cloth. Price \$10.00. Lea & Febiger, Philadelphia and New York, 1924.

All students and practitioners of medicine will welcome a new edition of Gray's Anatomy, which for more than half a century has been the standard of the world. This twenty-first edition represents a revision, and the incorporation in the text of the advances that have been made since the publication of the previous edition, especially in microscopic anatomy, anatomy of the embryo, and increased knowledge of the anatomy and physiology of the ductless glands. New illustrations have been added, and some old ones have been replaced by more effective ones. The publishers' work has been well done and an extended review of the work is unnecessary. No one thinks of mentioning any other textbook when considering anatomy, and its superiority over all other works indicates that it reflects the latest acceptations to anatomical knowledge.

DISEASES OF THE EYE. By George E. deSchweinitz, M.D., L.L.D., Sc.D., professor of ophthalmology in the University of Pennsylvania; ophthalmic surgeon to the University Hospital, etc. Tenth edition, reset, with 434 illustrations and seven color plates. W. B. Saunders Company, Philadelphia and London, 1924.

The author of this textbook is a distinguished teacher, clinician and writer. His textbook on "Diseases of the Eye" long has enjoyed popularity second to none of the works on that subject. The tenth edition represents a revision, and, as the author says, "includes useful and important observations which have appeared in recent ophthalmic literature as well as certain statements and recommendations, modified or emphasized as the case may be, based on personal experience." Many new subjects have been discussed for the first time, notably work with the slit lamp, and various other improved methods of examination, operative technic, or therapeutic measures. Many of the illustrations have been redrawn, others have been set aside and about twenty-five new ones inserted. In short, the revision of it has placed the book on a par with previous editions in embracing the very latest and most trustworthy information pertaining to every branch of ophthalmology. Unquestionably it will maintain its well deserved popularity as a standard work on diseases of the eye.

LIFE INSURANCE EXAMINATIONS. Edited by Frank W. Foxworthy, Ph.B., M.D. On the staff of the Methodist Episcopal and City Hospitals, Indianapolis, Indiana. Cloth. Price, \$9.00. Pp. 738, with 156 illustrations. St. Louis: The C. V. Mosby Company, 1924.

So far as we know this is the first book of its kind ever presented to the medical profession. That seems rather strange in view of the fact that life insurance is one of the great enterprises of this country and the policies in force aggregate over sixty billion dollars, and, as the author says, companies having more than a billion dollars assets are no rarity.

A plea is made for more competent instruction concerning the practical methods of making life insurance examinations, and to any physician who accepts a position as medical examiner for an insurance company this volume contains a veritable wealth of useful information.

Special chapters are devoted to the history of life insurance and the business of organizing an examiner's force and the work of the examiners. Chapters then are devoted to examination as it pertains to special diseases and conditions of the body, the use of various instruments of precision, the reliance to be based upon laboratory findings, and the role played by goitre, operations, and focal infections upon the value of the risk.

There are several interesting chapters dealing very fully with urinalysis and the significance of certain findings, together with chapters on laboratory procedures, involving the Wassermann test, blood chemistry and basal metabolism. The hazards occurring in various climates and in certain occupations are duly considered, together with the relationship that inheritance and physical peculiarities have to mortality. There also are chapters on frauds as perpetrated by applicants and examiners, and the legal aspects of life insurance examinations.

There are a large number of illustrations which materially add to the value of the book. Many subjects have been handled by collaborators who have been chosen for their fitness to write authoritatively upon the subjects assigned. Among these contributors will be found the names of many men occupying high positions in the insurance world, together with the names of some of the most prominent medical men in America.

The author has succeeded in making the book exceedingly valuable as a practical treatise upon the subject of life insurance examinations, and is to be commended for getting out a volume that should have a wide circulation among all those who are interested in any way in life insurance work.

ABT'S PEDIATRICS. By 150 specialists. Edited by Isaac A. Abt, M.D., professor of diseases of children, Northwestern University Medical School, Chicago. Eight octavo volumes, total 8,000 pages with 1,500 illustrations, and separate index volume free. Volumes I and II. W. B. Saunders Co., Philadelphia and London. Cloth, \$10.00 per volume. 1923. Sold by subscription.

The whole medical profession is indebted to Professor Abt for this wonderful collaboration, for it is of such breadth of scope that an appeal is made to the interest of any medical man, from the surgeon to the medical historian. Likewise the author has gone far and wide to pick for his collaborators men who are undisputed leaders in their own field of endeavor. Yet withal a rich bibliography is drawn upon that makes the work almost encyclopedic in character, though still retaining the charm that comes from monographic treatment of the subject matter.

While it would be futile to undertake a detailed review of the vast number of subjects handled, yet it is difficult to refrain from mentioning in passing the interesting sections in Volume I dealing with the history of pediatrics, and with hygiene. Both subjects are so delightfully handled as to be thoroughly entertaining. Volume II is full of practical information detailed in character, upon such vitally important subjects as history taking and physical examination, cerebro-spinal fluid, roentgenology in pediatrics, heliotherapy, diabetes, acidosis, acrodynia, etc. Brenneman's chapter on artificial feeding of infants is typically conservative and satisfying.

Pediatricians the world over will eagerly await the completion of this remarkable treatise, and it is certainly to be hoped that the remaining volumes will be freed from the stigma of the several typographical errors that are to be found in the first two volumes.

Golfer—"Doctor, you remember you recommended golf to take my mind off my work?"

Doctor—"Yes."

Golfer—"Well, can you prescribe something now to get it back again?"—*Life*.

INDEX TO VOLUME XVII

ORIGINAL ARTICLES	PAGE	F	PAGE
A			
Abdominal Emergencies, Medical and Surgical	246	FANKBONER, W. A., Marion. (Epidemic Encephalitis—After Effects)	9
Adenomatosis of the Thyroid	337	Fissure Ani, a Preliminary Report on the Use of Quinine and Urea Hydrochloride in the Treatment of	50
Air Passages, Foreign Bodies in the: Diagnosis and Localization	103	FOX, L. WEBSTER, Philadelphia. (Trachoma at Its Worst Among the Blackfeet Indians)	370
Anemia, Secondary, a Consideration of Certain Causative Conditions	169	Fracture of the Long Bones, Use of Parham-Martin Bands in	76
Anomalies, The Importance of, in the Diagnosis and Treatment of Diseases of the Urinary Organs	239	Fractures	414
Arthritis of the Spine	218	FRAZIER, CHARLES H., Philadelphia. (The Trend of Neurological Surgery)	67
B			
BARNES, ARLIE R., and FREDERICK A. WILLIS, Rochester, Minnesota. (Chronic Adherent Pericarditis)	101	G	
Basal Metabolism, The Value of, in Clinical Medicine	276	GATCH, W. D., Indianapolis. (The Closure of Chronic Empyema Cavities by Chemical Treatment)	273
BAYLEY, R. D., Lafayette. (Sore Throat, a Case of Malingering)	184	GILLUM, J. R., Terre Haute. (Dacryocystorhinostomy)	113
BEASLEY, THOMAS J., Indianapolis. (Tuberculosis of Bronchial Lymph Glands)	79	Goitre at Indiana University	183
BENEDICT, WILLIAM L., Rochester, Minnesota. (Treatment of Uveal Diseases)	408	GRAHAM, ALOIS B., Indianapolis. (A Preliminary Report on the Use of Quinine and Urea Hydrochloride in the Treatment of Fissure Ani)	50
BERMAN, JACOB K., Indianapolis. (Abdominal Emergencies, Medical and Surgical)	246	GREENHILL, J. P., Chicago. (The Conduct of the Second Stage of Labor)	175
Blood Transfusion, Some Problems of	205	H	
BOSENBURY, CHARLES S., South Bend. (Some Remarks on Contagious Diseases)	240	Hallucinoses, Acute, Following Operations on the Aged, Especially Prostatectomy	43
Bronchial Lymph Glands, Tuberculosis of	79	HAMER, H. F., and H. O. MERTZ, Indianapolis. (The Importance of Anomalies in the Diagnosis and Treatment of Diseases of the Urinary Organs)	239
BULSON, EUGENE L., Fort Wayne. (Foreign Bodies in the Air Passages: Diagnosis and Localization)	103	HOMMAN, GRACE LINE, LaPorte. (Arthritis of the Spine)	218
C			
Cancer, The Influence of Ignorance and Neglect on the Incidence and Mortality of	331	I	
CLARK, WILLIAM L., Philadelphia. (The Treatment of Neoplastic Diseases by Combined Methods)	271	Insulin, The Discovery and Development of	147
COLE, A. M., Indianapolis. The Use of X-Ray and Radium in Superficial Malignancies	71	J	
Compensation for Medical Services	382	JACKSON, EDWARD, Denver. (A Present Understanding of Tuberculosis)	403
Contagious Diseases, Some Remarks on	340	JACKSON, F. G., Muncie. (A Plea for Materia Medica)	117
CUMMER, CLYDE L., Cleveland. (Secondary Anemia, a Consideration of Certain Causative Conditions)	169	JACKSON, G. B., Indianapolis. (Major Surgical Obstetrics)	249
Cysts, Mesenteric	417	K	
Czerny-Kleinschmidt Butter-Flour Mixture, Some Observations on the	116	Kidney Regeneration, Some Experimental Studies in	44
D			
Dacryocystorhinostomy	113	KILMAN, JOSEPH ERLE and JOSEPH RILUS EASTMAN, Indianapolis. (Acute Hallucinoses Following Operations on the Aged, Especially Prostatectomy)	43
Diabetes Mellitus, The General Clinical Management of	144	L	
Diabetes Mellitus, The Treatment of, with Insulin	137	Labor, Second Stage of, The Conduct of the	175
Digitalis, The Therapeutic Use of	281	LARKIN, BERNARD J., Indianapolis. (The Etiology of Retinitis Proliferans)	13
DUBOIS, C. C., Warsaw. (Acute Poliomyelitis Treated with Rosenow's Serum)	381	LENT, EDWIN J., and MARTHA BREWER LYON, South Bend. (Retinitis Proliferans—Report of Case)	16
E			
EARP, SAMUEL E., Indianapolis. (Concerning the Past, Present and Future of Medical Economics)	367	LEWIS, BRANSFORD, St. Louis. (Urologic Diagnosis for the General Practitioner)	374
EASTMAN, JOSEPH RILUS, and JOSEPH ERLE KILMAN, Indianapolis. (Acute Hallucinoses Following Operations on the Aged, Especially Prostatectomy)	43	LITTLE, W. D., Indianapolis. (Some Problems of Blood Transfusion)	205
EASTMAN, NICHOLSON J., Indianapolis. (The Phlorizin Test in the Diagnosis of Early Pregnancy)	244	LUCK, FERNANDE H., Bloomington. (Goitre at Indiana University)	183
Economics, Medical, Concerning the Present, Past and Future of	367	Lungs, Syphilis of the	83
EDLAVITCH, B. M., Fort Wayne. (The General Clinical Management of Diabetes Mellitus). Second Paper of Symposium on Diabetes	144	LYON, MARTHA BREWER, and EDWIN J. LENT, South Bend. (Retinitis Proliferans—Report of Case)	16
Empyema Cavities, The Closure of Chronic, by Clinical Treatment	273	M	
Encephalitis, Epidemic—After Effects	9	MACDONALD, JOHN A., and C. L. RUDISELL, Indianapolis. (The Treatment of Diabetes Mellitus with Insulin). First Paper of Symposium on Diabetes	137

	PAGE		PAGE
Malignancies, Superficial; The Use of X-Ray and Radium in.....	71	SNYDER, J. W., Indianapolis. (Adenomatosis of the Thyroid).....	337
MALMSTONE, F. A., Griffith. (Obstetrics in General Practice).....	150	STEMM, W. H., North Vernon. (Acute Infectious Osteomyelitis).....	47
Materia Medica, A Plea for.....	117	Surgery, Insulin in.....	149
MAYO, CHARLES H., Rochester, Minnesota. (The Function of the Thyroid Gland and the Lowered Mortality Following Its Surgical Treatment).....	1	Syphilis of the Lungs.....	83
MAYO, WILLIAM J., Rochester, Minnesota. (The Influence of Ignorance and Neglect on the Incidence and Mortality of Cancer).....	331	T	
MERTZ, H. O., and H. F. HAMER, Indianapolis. (The Importance of Anomalies in the Diagnosis and Treatment of Diseases of the Urinary Organs).....	239	TAYLOR, JOHN S., Sullivan. (The Medical Profession and the Indiana Workmen's Compensation Law).....	283
MILLIKEN, ROBERT A., Indianapolis. (Mesenteric Cysts).....	417	Thyroid, Adenomatosis of the.....	337
MORSE, JOHN LOVETT, Boston. (The Physical Examination of Infants and Children).....	3	Thyroid Gland. The Function of the, and the Lowered Mortality Following Its Surgical Treatment.....	1
MORSE, JOHN LOVETT, Boston. (Compensation for Medical Services).....	382	Thyroid, The Colloid.....	210
MUMFORD, E. B., Indianapolis. (The Use of Parnham-Martin Bands in Fractures of the Long Bones).....	76	Trachoma at Its Worst Among the Blackfeet Indians.....	370
N		Tuberculosis, A Present Understanding of.....	403
Neoplastic Diseases, The Treatment of, by Combined Methods.....	271	Tuberculosis, Its Diagnosis and Care.....	212
Nervous Disorders and Public Welfare.....	334	U	
Neurological Surgery, The Trend of.....	67	Urologic Diagnosis for the General Practitioner.....	374
O		Uveal Diseases, Treatment of.....	408
Obstetrics in General Practice.....	150	W	
Obstetrics, Major Surgical.....	249	WALTERS, ARTHUR, Indianapolis. (The Discovery and Development of Insulin). Third Paper of Symposium on Diabetes.....	147
Osteomyelitis, Acute Infectious.....	47	WILLUS, FREDERICK A., and ARLIE R. BARNES, Rochester, Minnesota. (Chronic Adherent Pericarditis).....	101
Osteosathyrosis, Idiopathic.....	111	WISCH, L. J., Chicago. (Some Observations on the Czerny-Kleinschmidt Butter-Flour Mixture).....	116
P		Workmen's Compensation Law, The Medical Profession and the Indiana.....	283
PATRICK, HUGH T., Chicago. (Nervous Disorders and Public Welfare).....	334	X	
Pericarditis, Chronic Adherent.....	101	X-Ray and Radium in Superficial Malignancies.....	71
Phlorizin Test, The, In the Diagnosis of Early Pregnancy.....	244	SPECIAL ARTICLES	
Physical Examination, The, of Infants and Children.....	3	Chicago Home, Your.....	418
Pollomyelitis, Acute, Treated with Rosenow's Serum.....	381	Riley Hospital for Children, The.....	383
PORTER, MILES F., Fort Wayne. (Insulin in Surgery). Fourth Paper of Symposium on Diabetes.....	149	Tom, By Himself.....	420
Post-Refractive Considerations.....	179	EDITORIALS	
Prostatectomy, Acute Hallucinoses Following.....	43	A	
PRIEST, F. A., Marion. (Tuberculosis, Its Diagnosis and Care).....	212	Abrams' Fraud, The.....	313
Q		A. M. A., The Chicago Session of the.....	154
Quinine and Urea Hydrochloride in the Treatment of Fissure Ani.....	50	Association's Activities, The.....	23
R		B	
Retinitis Proliferans, The Etiology of.....	13	Benevolences, Turn Swollen Fortunes Into.....	56
Retinitis Proliferans, Report of Case.....	16	Blackmailing Malpractice Suits.....	90
RODRIGUEZ, JOAN, Fort Wayne. (Idiopathic Osteosathyrosis).....	111	C	
RUDISELL, C. L., and JOHN A. MACDONALD, Indianapolis. (The Treatment of Diabetes Mellitus with Insulin). First Paper of Symposium on Diabetes.....	137	Cleft Palate Surgery.....	386
RUPEL, ERNEST, Indianapolis. (Some Experimental Studies in Kidney Regeneration).....	44	Colds, Acute.....	53
S		Community Service, Award for.....	90
SAYERS, FRANK E., Terre Haute. (Syphilis of the Lungs).....	83	Christian Science and Smallpox.....	423
SEITZ, CHARLES L., Evansville. (The Value of Basal Metabolism in Clinical Medicine).....	276	D	
SHANKLIN, E. M., Hammond. (Post-Refractive Considerations).....	179	Diphtheria Antitoxin, The Prophylactic Use of.....	122
Sore Throat, A Case of Malingering.....	184	Diphtheria, Preventable Mortality From.....	55
SPEED, KELLOGG, Chicago. (Fractures).....	414	Diploma Mills, Recognition of.....	121
Spine, Arthritis of the.....	218	Duty, The Urgent, of Physicians Now.....	53
SNYDER, J. W., Indianapolis. (The Colloid Thyroid).....	210	E	
		Education for the Poor Boy.....	157
		Employees, Physical Examination of.....	189
		Ethics, Yes, We Have No.....	226
		Examinations, Life Insurance.....	55
		Executive Secretary, The New.....	424
		Eye Sight Conservation and Frequent Eye Examinations.....	89
		F	
		Fée Bills.....	227
		Fees, Professional.....	91
		Focal Sepsis.....	386
		G	
		Glaucoma, Simple, Necessity for Early Recognition and Treatment.....	421
		H	
		Harrison, Antinarcotic Law.....	422
		Health Promotion Propaganda.....	309
		Hospital, A New Type of.....	346

I		PAGE	G		PAGE
Income Tax Reports, Deductible Features in	122		Garrigues, I. D.	395	
Indianapolis Session, The	223		Gemmill, Henry Clay	96	
Indianapolis Session, The	255		Gibson, Charles W.	196	
Indianapolis Session, The	345		Gilbert, Joseph L.	434	
Industrial Cases, Fees in	155		Ginn, James F.	233	
Industrial Work	228		Gordon, B. L.	162	
Investments, Fraudulent, for the Doctor	187		Graham, Oliver P.	32	
L			Griffith, Thomas Jefferson	62	
Legislation, Safety	186		H		
Life Insurance, A Means of Securing Cheaper	312		Hall, Willis	162	
Liquor Prescribing	227		Harper, James A.	356	
M			Hesler, G. F.	62	
Malpractice Suits, Blackmailing	90		Hodgin, E. E.	32	
Medical Board, Important Actions of	57		Houser, Solon K.	162	
Medical Defense, Legal Expense in	256		Hunt, B. S.	162	
Medical Progress, Friends of	25		Hunt, John S.	264	
Medical Schools, Low Grade	24		Hunter, Walter M.	32	
N			J		
Nursing, Public Health	256		Jameson, Henry	96	
P			Jones, H. E.	162	
Physical Examination of Employees	189		K		
Precedent, A Dangerous	188		Kemp, O. P.	264	
President, Our	309		Kentling, Joseph V.	33	
Program for the Next Session	154		L		
Q			Leech, Garrett D.	264	
Quackery, Advertising Is the Life of	25		Little, P. B.	356	
Quackery, More	255		M		
Qualifications, Require Equally High of All Who Practice Medicine	313		Manker, Frank E.	264	
R			Mason, Charles	435	
Rheumatism	421		Matlock, H. J.	264	
S			McFarland, Norman	434	
Septicemia, The Treatment of, and Local Infections	88		Metts, Fred A.	32	
Smallpox, Christian Science in	90		Michael, Charles W.	395	
Smallpox, Protection from	311		Miller, Galen	264	
Socialism in Medical Practice	223		Milligan, S. A.	232	
State Board of Health, Activities of	119		Morgan, T. W.	196	
State Board of Health Policies	225		Munsey, Samuel E.	196	
Surgeons, Unrest in College of	387		N		
T			Nusbaum, J. D.	32	
Taxes, No Reduction in Special, on Physicians	123		O		
Tribute, Deserved, to Medical Men	25		Oliphant, Homer N.	395	
Taxes, Proposed Reduction of, for Medical Men	56		Olin, L. W.	233	
V			O'Neill, T. J.	196	
Volstead Law as Applied to Physicians, The	311		P		
DEATHS			Padgett, Thomas I.	356	
A			Pettigrew, David A.	232	
Addison, Michael	129		Pettijohn, O. B.	62	
Aldred, John A.	96		Phelps, Mary E.	356	
Auble, Clarence S.	129		Putnam, W. E.	32	
B			R		
Bigham, O. A.	162		Reeves, A. J.	196	
Bowles, Thomas J.	162		Roberts, J. D.	162	
Bradley, John S.	356		Rogers, H. H.	265	
Brown, W. W. C.	324		Rucker, Jesse	232	
Bryan, Charles S.	62		Rupert, A. M.	32	
Burres, E. W.	32		S		
C			Sherrow, W. E.	62	
Chittick, Andrew	62		Short, R. B.	264	
Christian, Wilmer	32		Spicer, J. W.	395	
Clark, T. J.	324		Stockton, Sarah	129	
Colliver, Silas R.	395		Stunkard, Thomas Cromwell	324	
Cooper, James A.	434		T		
Cowger, Silas R.	395		Thomas, W. T.	356	
Creel, Thomas J.	32		Thompson, J. F.	395	
D			Thompson, William Henry	256	
Deffendall, William B.	232		Troutman, Rodney E.	162	
Dewey, George	196		W		
Dunfee, Joseph W.	129		Ware, C. M.	324	
E			Watson, W. D.	129	
Edenharter, G. F.	33		Wells, George M.	265	
Eikenberry, A. A.	129		White, William Henry	96	
F			Whitney, W. D.	129	
Fisher, M. V.	161		Wilcox, F. H.	162	
			Willson, S. C.	162	
			Wilson, J. D.	162	
			Wilton, Isaiah	62	
			Worrell, Jonathan P.	129	

Young, G. M.	264
Yundt, Alfred M.	356

CORRESPONDENCE

A	
"Adjustment" for Pregnancy, Another Sample of	37
B	
Boost, A.	199
I	
Illinois Doctors, Former, Attention	266
J	
Jameson, Dr. Henry, In Appreciation of	99
L	
Legislative Preparations	267
M	
Medical Reserve Corps, Development of	37
R	
Red Cross Nursing Service	363
Red Cross Policies	266
S	
State Medical Board, Directing Funds of the	363

SOCIETIES AND INSTITUTIONS

B	
Bureau of Publicity	98
C	
Council, The	34
Councilor District, Fourth	198
D	
Decatur County	436
F	
Floyd County	36
G	
Grant County	36
I	
Indiana State Board of Health	35
Indiana State Board of Health	132
Indiana State Medical Association	436
Indianapolis Session	294
K	
Knox County	36
M	
Muncie Academy of Medicine	36
N	
Northeastern Academy of Medicine	198
R	
Randolph County	36
S	
State Board of Medical Examination and Registration	64
T	
Tiptecanoe County	98
V	
Vigo County	132

BOOK REVIEWS

A	
Analysis of the Blood, Practical Chemical (Myers)	168
Anatomy, A Textbook of, and Physiology for Schools of Nursing, Normal Schools and Colleges (Williams)	204
Anatomy of the Human Body (Gray)	449
Anesthesia, Local (Braun)	136
Anesthesia, Practical Local, and Its Surgical Technic (Farr)	40
B	
Baby, Care of the (Griffith)	167
Baby, The Healthy (Dennet)	136
Bacteriology, Principles of (Eisenberg)	168
Biometry, Introduction to Medical, and Vital Statistics (Pearl)	167
C	
Child, The Normal, Its Care and Feeding (Brown)	166
Clinical Diagnosis (Emerson)	204
Council on Pharmacy and Chemistry of the A. M. A., Annual Reprints of the Reports of	204
D	
Diagnosis, Neurologic (Davis)	168
Diagnostic Methods (Brooks)	168

Dictionary, American Illustrated Medical (Edited by W. A. Newman Dorland)	136
Dietetics, Lectures on (Einhorn)	136
Dietetics, Practical (Patee)	136
Dietetics, The New, A Guide to Scientific Feeding in Health and Disease (Kellogg)	166
Digestive Organs, Diseases of the (Aaron)	168
E	
Examination, Clinical Guide to Bedside (Elias, Jagic, Luger)	168
Eye, Diseases of the (May)	330
Eye, Diseases of the (de Schweinitz)	449
F	
Female Impersonators, The (Werther-June)	136
G	
Genito-Urinary Diseases and Syphilis (Morton)	204
Geriatrics (Thewlis)	204
Gynecology and Surgery (Skeel)	402
H	
Healthy Child from Two to Seven, The (MacCarthy)	136
Hygiene of the Voice (Vorhees)	204
I	
Impotency, Sterility and Artificial Impregnation (Davis)	167
Infant, Management of the Sick (Porter)	136
Infant and Young Child, The (Morse, Wyman, Hill)	168
Infants, Premature and Congenitally Diseased (Hess)	136
International Clinics (Edited by Henry Cattell)	135
L	
Labyrinth and Equilibrium (Maxwell)	66
Life Insurance Examination (Foxworthy)	449
M	
Mayo Clinic, Collected Papers of the	41
Medicine, Methods in (Dock)	166
Mental Disorders, Introduction to the Study of (Barnes)	167
Mortality Experience of Policy Holders, The	166
N	
National Health Series	167
New and Nonofficial Remedies, 1924 (Council on Pharmacy and Chemistry of the A. M. A.)	238
Nose and Olfactory Organ in Man, The (Schaeffer)	203
Nursery Guide for Mothers and Nurses, The (Sauer)	136
Nutrition of Mother and Child (Moore)	66
O	
Obstetrical Nursing (Bacon)	204
Obstetrics for Nurses (Reed)	203
Obstetrics, Humor and Pathos of (Fair)	238
Opiate Addiction (Williams)	168
P	
Pathology, Applied of the Nose, Throat and Ear (Beck)	135
Patients, The Examination of (Foster)	167
Patient's Viewpoint, The (Flagg)	168
Pediatrics (Abt)	449
Physiotherapy Technic (Sampson)	39
Psychology, Applied for Nurses (Laird)	136
Psychology, Elements of Scientific (Dunlap)	168
R	
Rectum, Anus and Pelvic Colon, Diseases of the (Pennington)	41
Rubber and Gutta Percha Injections (Miller)	167
S	
Senescence, The Clinical Basis of Growth and (Robertson)	66
Skin, Diseases of the (Knowles)	168
Skin, Diseases of the (Stelwagon)	238
Statistics, Principles of Vital (Falk)	166
Surgery, Intranasal (Pratt)	330
Surgery, Operative (Bickham)	203
Surgical Subjects, Excursions Into (Diever and Rie- man)	41

(Continued on Adv. Page xx)

THE JOURNAL OF THE Indiana State Medical Association

Library of the College of
Physicians and Surgeons
22d St above Chestnut
Philadelphia Pa

Owned, Published and Controlled by the Indiana State Medical Association

ISSUED MONTHLY under the Direction of the Council

VOLUME XVII
Number 1

FORT WAYNE, IND., JANUARY 15, 1924

Per Year, \$3.00
Single Copy, 30 Cents

CONTENTS

ORIGINAL ARTICLES	PAGE	MISCELLANEOUS	PAGE
The Function of the Thyroid Gland and the Lowered Mortality Following Its Surgical Treatment. Charles H. Mayo, Rochester, Minn.	1	Deaths	32
The Physical Examination of Infants and Children. John Lovett Morse, Boston, Mass.	3	News Notes and Personals	33
Epidemic Encephalitis—After Effects. W. A. Fankboner, Marion	9	Truth About Medicines	38
The Etiology of Retinitis Proliferans. Bernard J. Larkin, Indianapolis	13	SOCIETIES AND INSTITUTIONS	
Retinitis Proliferans—Report of Case. Edwin J. Lent, Martha Brewer Lyon, South Bend	16	The Council	34
EDITORIALS		The Indiana State Board of Health	35
The Association's Activities	23	Floyd County Medical Society	36
Low Grade Medical Schools	24	Knox County Medical Society	36
Advertising is the Life of Quackery	25	Grant County Medical Society	36
Deserved Tribute to Medical Men	25	Randolph County Medical Society	36
		Muncie Academy of Medicine	36
		CORRESPONDENCE	
		Another Sample of "Adjustment" for Pregnancy	37
		Development of Medical Reserve Corps	37

Next Annual Session, Indianapolis, Sept. 24, 25, 26, 1924. List of Officers and Committees on Adv. Page viii.
Entered as Second Class Matter, January 20, 1908, at the Postoffice at Fort Wayne, Indiana, under Act of Congress of March 3, 1879. Accepted for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized October 18, 1918.

CALCREOSE

Tablets

Powder

Solution

PULMONARY TUBERCULOSIS

In many cases cough is indispensable and is best treated by promoting expectoration. For this purpose, creosote is a reliable remedy.

—Steven's Manual of Practice of Medicine, p. 384)



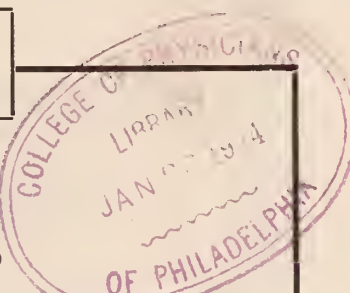
CALCREOSE (calcium creosote) is a mixture of approximately equal parts of beechwood creosote and calcium, which possesses the pharmacologic activity of creosote but apparently does not cause gastro-intestinal disturbances.

To secure the best results from the use of CALCREOSE it is important to give it in proper dosage. CALCREOSE may be given in the form of the solution or tablets.

Literature sent on request

THE MALTBIÉ CHEMICAL COMPANY

Newark, New Jersey



MEAD'S

WHAT'S IN A NAME

Whose name is signed to infant feeding instructions in your community—the manufacturer's or yours? You are the doctor.

Does the family physician instruct the mother of a baby to go to a drug store and follow the druggist's advice as to the selection of a food for the infant's requirements? Hardly ever.

Generally the doctor writes his feeding formula just as he does any other prescription and changes it from time to time to suit the requirements of the individual infant. His name and reputation are at stake. The baby's nutrition must be considered and possibly its life may be saved by proper food.

First thought

BREAST MILK

Second thought

COW'S MILK, MEAD'S DEXTRI-MALTOSE AND WATER

The physician who uses Mead's Dextri-Maltose when artificial feeding is necessary controls his case. There is no outside interference and his creative talent has full scope because Mead's Dextri-Maltose is supplied without directions on the packages and no advertising is done to the laity.

An ethical product offered exclusively to the medical profession must have merit. Will you investigate?

Pamphlet describing methods for prolonging breast milk, and samples of Mead's Dextri-Maltose, will be sent to physicians on request.

Pamphlet

on

Breast Milk



Pamphlet

on

Dextri-Maltose

MEAD JOHNSON & COMPANY

Evansville, Indiana, U. S. A.

Library of the College of
Physicians and Surgeons
22d St above Chestnut
Philadelphia Pa

Indiana State Medical Association

ISSUED MONTHLY under the Direction of the Council

Per Year, \$3.00
Single Copy, 30 Cents

ORIGINAL ARTICLES

PAGE

The Urgent Duty of Physicians Now.....	53
Acute Colds	53
Preventable Mortality from Diphtheria.....	55

	PAGE
Life Insurance Examinations.....	55
Turn Swollen Fortunes Into Benevolences.....	56
Proposed Reduction of Taxes for Medical Men.....	56
Important Actions of Medical Board.....	57
Editorial Notes.....	57

Deaths	62
News Notes and Personals	62
Truth About Medicines	65

State Board of Medical Registration and Examination..... 64

Next Annual Session, Indianapolis, Sept. 24, 25, 26, 1924. List of Officers and Committees on Adv. Page viii.
Entered as Second Class Matter, January 20, 1908, at the Postoffice at Fort Wayne, Indiana, under Act of
Congress of March 3, 1879. Accepted for mailing at special rate of postage provided for in
Section 1103, Act of October 3, 1917, authorized October 18, 1918.

100
BROWN COATED
TABLETS

Calcreose

4 Grains

Calcreose is a powder containing approximately 36 percent blackwood extract in chemical combination with the calcium

THE MALTBY CHEMICAL CO.
INC NEW YORK, N.Y.

Newark, New Jersey

MEAD'S

BETTER BABIES

SICK INFANTS

A food formula adapted to the well baby is in most cases entirely unsuitable for sick infants.

Athrepsia

Diarrhoeas

Colic in Breast-Fed Infants

Non-Thriving Breast-Fed Infants

Loose Green Stools Commonly Seen in Breast-Fed Infants

can generally be controlled by the physician who is familiar with

Mead's Casec and Mead's Powdered Protein Milk

The value of these products has been demonstrated by pediatricists.

We will be pleased to send any quantity of these products to any physician to enable him to determine their merits in any number of these types of cases.

THE MEAD JOHNSON POLICY

Mead's Infant Diet Materials are advertised only to physicians. No feeding directions accompany trade packages. Information in regard to feeding is supplied to the mother by written instructions from her doctor, who changes the feedings from time to time to meet the nutritional requirements of the growing infant. Literature furnished only to physicians.

Pamphlet
on
Breast Milk



Pamphlet
on
Dextri-Maltose

MEAD JOHNSON & COMPANY

Evansville, Indiana, U. S. A.

Library of the College of
Physicians and Surgeons
22d St above Chestnut
Philadelphia Pa

THE JOURNAL

OF THE

Indiana State Medical Association

Owned, Published and Controlled by the Indiana State Medical Association
ISSUED MONTHLY under the Direction of the Council

VOLUME XVII FORT WAYNE, IND., MARCH 15, 1924 Per Year, \$3.00
Number 3 Single Copy, 30 Cents

CONTENTS

ORIGINAL ARTICLES		EDITORIALS	
	Page		Page
The Trend of Neurological Surgery. Charles H. Frazier, Philadelphia	67	The Treatment of Septicemia and Local Infections	88
The Use of X-Ray and Radium in Superficial Malignancies. A. M. Cole, Indianapolis	71	Eye Sight Conservation and Frequent Eye Examinations	89
Use of Parham-Martin Bands in Fracture of the Long Bones. E. B. Mumford, Indianapolis	76	Blackmailing Malpractice Suits	90
Tuberculosis of Bronchial Lymph Glands. Thomas J. Beasley, Indianapolis	79	Award for Community Service	90
Syphilis of the Lungs. Frank E. Sayers, Terre Haute	83	Professional Fees	91
		Editorial Notes	92

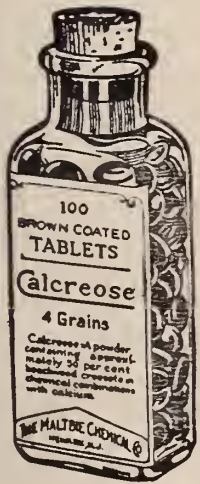
MISCELLANEOUS

Deaths	96
News Notes and Personals	97
Truth About Medicines	99

Next Annual Session, Indianapolis, Sept. 24, 25, 26, 1924. List of Officers and Committees on Adv. Page viii.
Entered as Second Class Matter, January 20, 1908, at the Postoffice at Fort Wayne, Indiana, under Act of
Congress of March 3, 1879. Accepted for mailing at special rate of postage provided for in
Section 1103, Act of October 3, 1917, authorized October 18, 1918.

CALCREOSE

Tablets
Powder
Solution



CREOSOTE IN TUBERCULOSIS

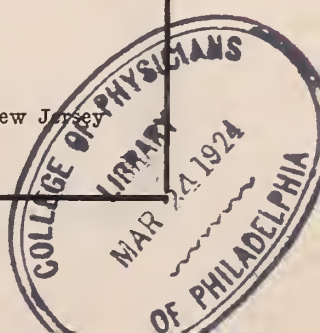
"It is again coming into favor. There seems to be no doubt but that it has a very definite effect in reducing expectoration and in lessening purulency. As a certain amount of the drug is excreted by the bronchial mucous membrane, this may explain, in part, its beneficial effects."—JOHN GUY: *Pulmonary Tuberculosis; Its Diagnosis and Treatment*, 1923, p. 252.

CALCREOSE (calcium creosotate) is a mixture of approximately equal parts of beechwood creosote and calcium. It possesses the pharmacologic activity of creosote, but, apparently, does not cause the gastro-intestinal disturbances to which patients object. Therefore CALCREOSE can be administered for comparatively long periods of time in large doses.

Samples of Tablets on Request

THE MALTBE CHEMICAL COMPANY

Newark, New Jersey



MEAD'S

BETTER BABIES

There is a difference between *PROPER NOURISHMENT* for the baby and just some kind of food.

SUCCESS

Physicians agree that successful infant feeding begins with

BREAST MILK

Pediatricists are constantly furnishing newer knowledge on

Prolonged Lactation.

Re-establishment of Breast Milk after the

Breast is Dry.

Overfeeding.

Underfeeding.

Colic of Breast Nursed Infants.

Instructions to Mothers at time of Baby's Birth.

Retracted and Spastic Nipples.

Premature Infants.

Lack of Education of Mothers.

These data will be found in our pamphlet entitled:

"BREAST FEEDING AND THE RE-ESTABLISHMENT OF BREAST MILK"

EQUIPMENT

When breast milk is not obtainable the following equipment furnished by MEAD will aid the physician to obtain gratifying results in artificial infant feeding:

MEAD'S PEDIATRIC TOOL KIT

contains File Index of Corrective Diets, Weight Charts, Prescription Blanks, History Charts, Diets for Older Children, Instructions for Expectant Mothers, Pedigreed and Certified Cod Liver Oil, Dextri-Maltose, Florena, Arrowroot Flour, Oat Flour, Barley Flour, Casec, other helps. This equipment is an aid to the management of the diet of well babies and sick babies and is of great assistance to obtain co-operation from mothers. It is free.

Mead's Infant Diet Materials assist the physician to obtain CONTROL and eliminate CONFUSION.

THE MEAD JOHNSON POLICY

Mead's Infant Diet Materials are advertised only to physicians. No feeding directions accompany trade packages. Information in regard to feeding is supplied to the mother by written instructions from her doctor, who changes the feedings from time to time to meet the nutritional requirements of the growing infant. Literature furnished only to physicians.

Pamphlet

on

Breast Milk



Pamphlet

on

Dextri-Maltose

MEAD JOHNSON & COMPANY

Evansville, Indiana, U. S. A.

An Institution Devoted to the Study of Infant Nutrition

THE JOURNAL

OF THE

Indiana State Medical Association

Owned, Published and Controlled by the Indiana State Medical Association

ISSUED MONTHLY under the Direction of the Council

VOLUME XVII
Number 4

FORT WAYNE, IND., APRIL 15, 1924

Per Year, \$3.00
Single Copy, 30 Cents

CONTENTS

	Page		Page
ORIGINAL ARTICLES		MISCELLANEOUS	
Chronic Adherent Pericarditis. Frederick A. Willus and Arlie R. Barnes, Rochester, Minnesota	101	Deaths	129
Foreign Bodies in the Air Passages: Diagnosis and Localization. Eugene L. Bulson, Fort Wayne	103	News Notes and Personals	129
Idiopathic Osteopsathyrosis. Juan Rodriguez, Fort Wayne	111	Truth About Medicines	133
Dacryocystorhinostomy. J. R. Gillum, Terre Haute	113	SOCIETIES AND INSTITUTIONS	
Some Observations on the Czerny-Kleinschmidt Butter-Flour Mixture. L. J. Wisch, Chicago	116	Indiana State Board of Health	132
A Plea for Materia Medica. F. G. Jackson, Muncie	117	Vigo County Medical Society	132
EDITORIALS		BOOK REVIEWS	
Activities of the State Board of Health	119	International Clinics. (Edited by Henry W. Cattell)	135
Recognition of Diploma Mills	121	Applied Pathology of Diseases of the Nose, Throat and Ear. (Beck)	135
Deductable Features in Income Tax Reports	122	Local Anesthesia. (Braun)	136
The Prophylactic Use of Diphtheria Antitoxin	122	Practical Dietetics. (Pattee)	136
No Reduction in Special Taxes on Physicians	123	American Illustrated Medical Dictionary. (Edited by W. A. Newman Dorland)	136
Editorial Notes	123	The Female Impersonators. (Werther-June)	136
		Premature and Congenitally Diseased Infants. (Hess)	136
		The Nursery Guide for Mothers and Nurses. (Sauer)	136

Next Annual Session, Indianapolis, Sept. 24, 25, 26, 1924. List of Officers and Committees on Adv. Page viii.
Entered as Second Class Matter, January 20, 1908, at the Postoffice at Fort Wayne, Indiana, under Act of
Congress of March 3, 1879. Accepted for mailing at special rate of postage provided for in
Section 1103, Act of October 3, 1917, authorized October 18, 1918.

CALCREOSE

Tablets

Powder

Solution



CREOSOTE IN TUBERCULOSIS

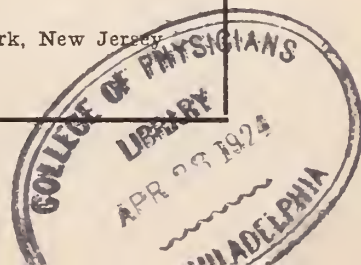
"It is again coming into favor. There seems to be no doubt but that it has a very definite effect in reducing expectoration and in lessening purulency. As a certain amount of the drug is excreted by the bronchial mucous membrane, this may explain, in part, its beneficial effects."—JOHN GUY: *Pulmonary Tuberculosis; Its Diagnosis and Treatment*, 1923, p. 252.

CALCREOSE (calcium creosotate) is a mixture of approximately equal parts of beechwood creosote and calcium. It possesses the pharmacologic activity of creosote, but, apparently, does not cause the gastro-intestinal disturbances to which patients object. Therefore CALCREOSE can be administered for comparatively long periods of time in large doses.

Samples of Tablets on Request

THE MALTBIÉ CHEMICAL COMPANY

Newark, New Jersey



MEAD'S

BETTER BABIES

SIMPLIFIED INFANT FEEDING

First Thought

BREAST MILK

No system of feeding so simple and satisfactory as **breast nursing** the infant has ever been devised.

Every infant should have an opportunity to obtain Breast Milk, hence our sincere efforts to furnish ways and means of prolonging lactation in the mother, without the use of drugs or concoctions, are fully described in our pamphlet entitled

"BREAST FEEDING AND THE RE-ESTABLISHMENT OF
BREAST MILK"

ARTIFICIAL FEEDING

The value of Mead's Dextri-Maltose in average babies is many times multiplied by the confidence of physicians who prescribe it in their infant feeding milk modifications. Mead's Dextri-Maltose represents an ethical ideal. Moreover, the combination of Mead's Dextri-Maltose, fresh cow's milk and water, gives gratifying results.

DIARRHOEAS IN BREAST FED AND BOTTLE FED BABIES respond to a diet of Mead's Casec or Mead's Powdered Protein Milk.

EVERY INFANT, whether breast fed or bottle fed, should receive the protective antirachitic value of Mead's P & C Cod Liver Oil.

The infant diet materials advertised here, when used by the physician, will meet the nutritional requirements of a large number of well and sick babies.

Please tear out this coupon and send for the following:

1. Pamphlet on Breast Feeding.
1. Sample and literature on Mead's Dextri-Maltose.....; Mead's Casec.....;
Mead's Powdered Protein Milk.....; Mead's Cod Liver Oil; Mead's
Tool Kit for Individualized Infant Feeding.....

Name.....

Address.....

City..... State.....

—Indiana State Medical Journal—April Issue—



MEAD JOHNSON & COMPANY

Evansville, Indiana, U. S. A.

An Institution Devoted to the Study of Infant Nutrition

THE JOURNAL

OF THE

Indiana State Medical Association

Owned, Published and Controlled by the Indiana State Medical Association

ISSUED MONTHLY under the Direction of the Council

VOLUME XVII
Number 5

FORT WAYNE, IND., MAY 15, 1924

Per Year, \$3.00
Single Copy, 30 Cents

CONTENTS

ORIGINAL ARTICLES	Page	MISCELLANEOUS	Page
The Treatment of Diabetes Mellitus with Insulin. (First Paper of Symposium on Diabetes). John A. MacDonald and C. L. Rudesill, Indianapolis	137	Deaths	161
The General Clinical Management of Diabetes Mellitus. (Second Paper of Symposium on Diabetes). B. M. Edlavitch, Fort Wayne	144	News Notes and Personals	162
The Discovery and Development of Insulin. (Third Paper of Symposium on Diabetes). Arthur Walters, Indianapolis	147	Truth About Medicines	164
Insulin in Surgery. (Fourth Paper of Symposium on Diabetes). Miles F. Porter, Fort Wayne	149		
Obstetrics in General Practice. F. A. Malmstone, Griffith, Indiana	150		
		BOOK REVIEWS	
EDITORIALS		The Antidiabetic Functions of the Pancreas and the Successful Isolation of the Antidiabetic Hormone-Insulin. (MacLeod)	166
The Chicago Session of the A. M. A.	154	Principles of Vital Statistics. (Falk)	166
Program for the Next Session	154	The Mortality Experience of Industrial Policy Holders	166
Fees in Industrial Cases	155	Methods in Medicine. (Dock)	166
Education for the Poor Boy	157	The Normal Child. Its Care and Feeding. (Brown)	166
Editorial Notes	157	The New Dietetics. A Guide to Scientific Feeding in Health and Disease. (Kellogg)	166
		Care of the Baby. (Griffith)	167
		Introduction to the Study of Mental Disorders. (Barnes)	167
		Rubber and Gutta Percha Injections. (Miller)	167
		Impotency, Sterility and Artificial Impregnation. (Davis)	167
		The Examination of Patients. (Foster)	167
		(Continued on Advertising page viii.)	

Next Annual Session, Indianapolis, Sept. 24, 25, 26, 1924. List of Officers and Committees on Adv. Page viii.
Entered as Second Class Matter, January 20, 1908, at the Postoffice at Fort Wayne, Indiana, under Act of Congress of March 3, 1879. Accepted for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized October 18, 1918.

CALCREOSE

TUBERCULOSIS

"CREOSOTE seems to be of value in cases of chronic fibroid disease with copious expectoration, in patients with a secondary infection or with chronic bronchitis, and in some early cases with dyspepsia and intestinal fermentation." R. A. Young: Lancet 1:484 (March 8) 1924.

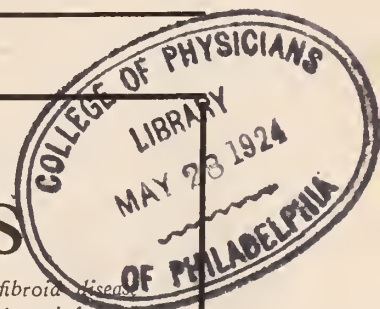
CALCREOSE (calcium creosotate) is a mixture containing in loose combination approximately equal weights of creosote and lime. It differs from creosote in that it apparently does not have any untoward effect on the stomach.

POWDER—TABLETS—SOLUTION

Samples of Tablets on Request

THE MALTBIÉ CHEMICAL COMPANY

Newark, New Jersey



MEAD'S

BETTER BABIES

The most important factor in the development of a Nation is

THE BIRTH AND REARING OF CHILDREN

No food is more important during the first year of life than BREAST MILK.

The best substitute for Breast Milk is Fresh Modified Cow's Milk.

Every baby, whether bottle-fed or breast-fed, should be under the supervision of a physician.

Many physicians have learned

The value of Mead's Dextri-Maltose in the
Modification of Cow's Milk

The value of Mead's Casein in
Fermentative Diarrheas

The value of Mead's Cod Liver Oil to protect
the infant from rickets

The value of MEAD'S POLICY

THE MEAD JOHNSON POLICY—Mead's Infant Diet Materials are advertised only to physicians. No feeding directions accompany trade packages. Information in regard to feeding is supplied to the mother by written instructions from her doctor, who changes the feedings from time to time to meet the nutritional requirements of the growing infant. Literature furnished only to physicians.



MEAD JOHNSON & COMPANY

Evansville, Indiana, U. S. A.

THE JOURNAL

OF THE

Indiana State Medical Association

Owned, Published and Controlled by the Indiana State Medical Association

ISSUED MONTHLY under the Direction of the Council

VOLUME XVII
Number 6

FORT WAYNE, IND., JUNE 15, 1924

Per Year, \$3.00
Single Copy, 30 Cents

CONTENTS

ORIGINAL ARTICLES	PAGE	MISCELLANEOUS	PAGE
Secondary Anemia, a Consideration of Certain Causative Conditions. Clyde L. Cummer, Cleveland	169	Deaths	196
The Conduct of the Second Stage of Labor. J. P. Greenhill, Chicago	175	News Notes and Personals	196
Post-Refractive Considerations. E. M. Shanklin, Hammond	179	Truth About Medicines	201
Goitre at Indiana University. Fernande H. Luck, Bloomington	183	Abstracts	199
Sore Throat, a Case of Malingering. R. D. Bayley, Lafayette	184		
		SOCIETIES AND INSTITUTIONS	
EDITORIALS		Northeastern Indiana Academy of Medicine	198
Safety Legislation	186	Fourth District Medical Society	198
Fraudulent Investments for the Doctor	187		
A Dangerous Precedent	188	CORRESPONDENCE	
Physical Examination of Employees	188	A Boost	199
Editorial Notes	189		
		BOOK REVIEWS	
		The Nose and Olfactory Organ in Man. (Schaeffer)	203
		Obstetrics for Nurses. (Reed)	203
		Operative Surgery, Covering the Operative Technic Involved in the Operations of General and Special Surgery. (Bickham)	203

(Continued on Advertising page viii.)

Next Annual Session, Indianapolis, Sept. 24, 25, 26, 1924. List of Officers and Committees on Adv. Page viii.
Entered as Second Class Matter, January 20, 1908, at the Postoffice at Fort Wayne, Indiana, under Act of Congress of March 3, 1879. Accepted for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized October 18, 1918.

Summer Colds

This is the time for summer colds to develop. Everyone knows how resistant they are to treatment and that disastrous complications may arise.

TRY CALCREOSE

CALCREOSE (Calcium creosotate) is a mixture containing in loose chemical combination approximately equal weights of creosote and lime. It has the pharmacologic activity of

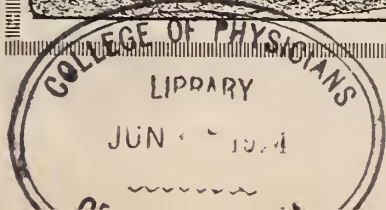
creosote as used in the adjuvant treatment of tuberculosis but differs from creosote in that it apparently does not have any untoward effect on the stomach.

POWDER—TABLETS—SOLUTION

SAMPLES of TABLETS on REQUEST

THE MALTBY CHEMICAL CO.
NEWARK., NEW JERSEY

CALCREOSE



MEAD'S

LIVE FOOD

for Babies

There is none so good

First Thought

BREAST MILK

Second Thought

FRESH COW'S MILK

Water

and

MEAD'S DEXTRI-MALTOSE

For Your Convenience

Pamphlet
on
Breast Milk



Pamphlet
on
Dextri-Maltose

THE MEAD JOHNSON POLICY—Mead's Infant Diet Materials are advertised only to physicians. No feeding directions accompany trade packages. Information in regard to feeding is supplied to the mother by written instructions from her doctor, who changes the feedings from time to time to meet the nutritional requirements of the growing infant. Literature furnished only to physicians.

MEAD JOHNSON & COMPANY

Evansville, Indiana, U. S. A.

THE JOURNAL

OF THE

Indiana State Medical Association

Owned, Published and Controlled by the Indiana State Medical Association

ISSUED MONTHLY under the Direction of the Council

VOLUME XVII
Number 7

FORT WAYNE, IND., JULY 15, 1924

Per Year, \$3.00
Single Copy, 30 Cents

CONTENTS

ORIGINAL ARTICLES		PAGE		PAGE
Some Problems of Blood Transfusion. W. D. Little, Indianapolis	205	Yes, We Have No—Ethics.....	226	
The Colloid Thyroid. J. W. Snyder, Indianapolis.....	210	Liquor Prescribing	227	
Tuberculosis, Its Diagnosis and Care. F. A. Priest, Marion	212	Fee Bills	227	
Arthritis of the Spine. Grace Line Homman, LaPorte	218	Industrial Work	228	
EDITORIALS		Editorial Notes.....	228	
The Indianapolis Session	223	MISCELLANEOUS		
Socialism in Medical Practice.....	223	Deaths	232	
State Board of Health Policies	225	News Notes and Personals.....	233	
		Truth About Medicines.....	238	
		Abstracts	236	

(Continued on Advertising page viii.)

Next Annual Session. Indianapolis, Sept. 24, 25, 26, 1924. List of Officers and Committees on Adv. Page viii.
Entered as Second Class Matter, January 20, 1908, at the Postoffice at Fort Wayne, Indiana, under Act of
Congress of March 3, 1879. Accepted for mailing at special rate of postage provided for in
Section 1103, Act of October 3, 1917, authorized October 18, 1918.

Summer Colds

This is the time for summer colds to develop. Everyone knows how resistant they are to treatment and that disastrous complications may arise.

TRY CALCREOSE

CALCREOSE (Calcium creosotate) is a mixture containing in loose chemical combination approximately equal weights of creosote and lime. It has the pharmacologic activity of

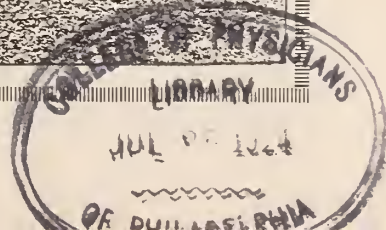
creosote as used in the adjuvant treatment of tuberculosis but differs from creosote in that it apparently does not have any untoward effect on the stomach.

POWDER—TABLETS—SOLUTION

SAMPLES of TABLETS on REQUEST

THE MALTBY CHEMICAL CO.
NEWARK., NEW JERSEY

CALCREOSE



MEAD'S

Preventing Nutritional Disturbances In Infants

By far the largest majority of children that are brought to hospitals suffering from severe nutritional disturbances are victims of serious errors made by parents who failed to consult their physicians, and who attempted to feed their babies without a doctor's advice.

If all babies were under a competent physician's care, infant mortality would be surprisingly reduced.

MEAD JOHNSON AND COMPANY realize that the *physician is the only one capable of feeding babies successfully*. MEAD'S INFANT DIET MATERIALS, therefore, have no directions on the package; the mother gets her feeding instructions *only* from her doctor and follows his advice throughout the feeding period.

MEAD'S DEXTRI-MALTOSE, Fresh Cow's Milk and Water, will give gratifying results in feeding a large majority of bottle babies.

MEAD'S CASEC and MEAD'S POWDERED PROTEIN MILK are splendid for fermentative diarrhoeas.

Samples and literature sent at the physician's request

THE MEAD JOHNSON POLICY—Mead's Infant Diet Materials are advertised only to physicians. No feeding directions accompany trade packages. Information in regard to feeding is supplied to the mother by written instructions from her doctor, who changes the feedings from time to time to meet the nutritional requirements of the growing infant. Literature furnished only to physicians.

MEAD JOHNSON & COMPANY

Evansville, Indiana, U. S. A.



Makers of Infant Diet Materials Exclusively

THE JOURNAL

OF THE

Indiana State Medical Association

Owned, Published and Controlled by the Indiana State Medical Association

ISSUED MONTHLY under the Direction of the Council

VOLUME XVII
Number 8

FORT WAYNE, IND., AUGUST 15, 1924

Per Year, \$3.00
Single Copy, 30 Cents

CONTENTS

	PAGE		PAGE
ORIGINAL ARTICLES		More Quackery	255
The Importance of Anomalies in the Diagnosis and Treatment of Diseases of the Urinary Organs. H. G. Hamer and H. O. Mertz, Indianapolis	239	Public Health Nursing	256
The Phlorizin Test in the Diagnosis of Early Pregnancy. Nicholson J. Eastman, Indianapolis	244	Legal Expense in Medical Defense	256
Abdominal Emergencies, Medical and Surgical. Jacob K. Berman, Indianapolis	246	Editorial Notes	257
Major Surgical Obstetrics. G. B. Jackson, Indianapolis	249	MISCELLANEOUS	
EDITORIALS		Deaths	264
The Indianapolis Session	255	News Notes and Personals	265
		Truth About Medicines	270
		Abstracts	267

(Continued on Advertising page viii.)

Next Annual Session, Indianapolis, Sept. 24, 25, 26, 1924. List of Officers and Committees on Adv. Page viii.
Entered as Second Class Matter, January 20, 1908, at the Postoffice at Fort Wayne, Indiana, under Act of Congress of March 3, 1879. Accepted for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized October 18, 1918.

General Medication in Tuberculosis

"**CALCIUM**—Certain it is, that patients, especially children, often improve with increased amounts of calcium in their food or as a medicament."

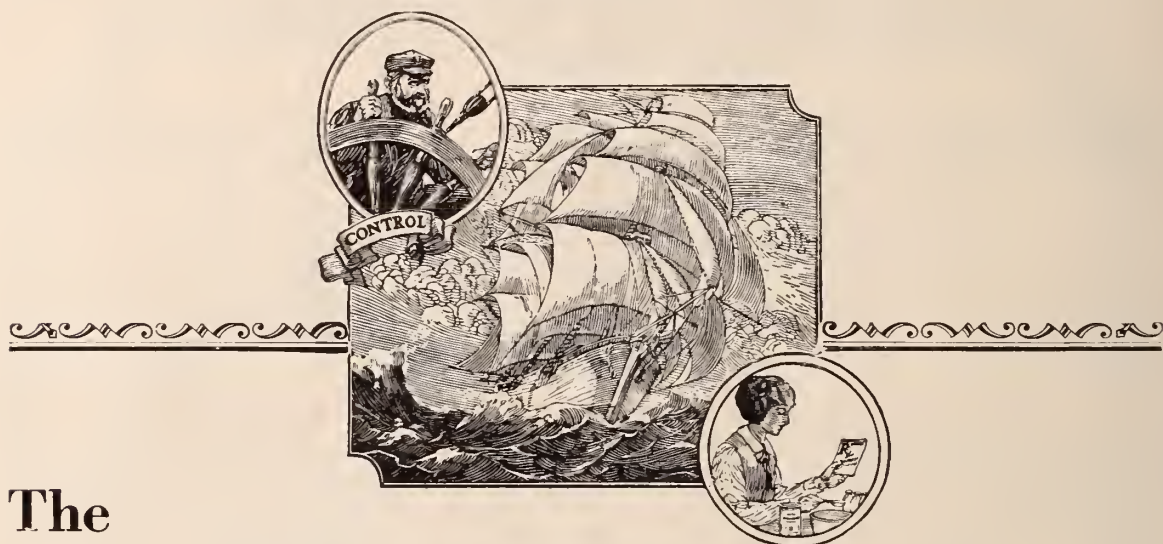
"**CREOSOTE**—It seems to be true that many patients have improved appetite under its stimulant or irritant action in the stomach. It may also for a time improve digestion, and the patient often adds weight. During this period there is frequently a lessening of the bronchitis, and, therefore a decreased expectoration, and with this decrease of the secondary (streptococcal) infection, there is likely to be less fever and, therefore, less sweating." A. M. A.: *Handbook of Therapy*, Ed. 6, p. 201.

CALCREOSE (calcium creosotate) is a mixture containing in a loose chemical combination approximately equal weights of creosote and lime. It has the pharmacologic activity of creosote but apparently does not have any untoward effect on the stomach.

Samples of Tablets on Request.

THE MALTBY CHEMICAL CO.
NEWARK., NEW JERSEY

CALCREOSE



The Control of Infant Feeding

The Baby who is under a Physician's Supervision is like a Ship in the Hands of an Experienced Captain.

The ship is responsive to every turn of the wheel—the crew obeys every command of the captain—the *captain controls* his ship.

When the doctor prescribes a feeding formula on his own prescription blank the mother obeys his instructions, and the baby is responsive to his diet. Mead's Infant Diet Materials have no directions on the package to interfere with the doctor's prescription—the *doctor controls* his infant feeding *throughout the entire feeding period*.

MEAD'S DEXTRI-MALTOSE

Cow's Milk and Water

Mead's Dextri-Maltose (Dextrins and Maltose) is assimilated by infants in greater amounts than other sugars before reaching the limit of tolerance and is less liable to cause digestive disturbances. Mead's Dextri-Maltose, cow's milk, and water, gives gratifying results in the majority of infants intrusted to the physician's care.

MEAD'S CASEC

Cow's Milk and Water

Many physicians are finding protein milk helpful in their cases of summer diarrhoea. Protein milk made with Casec enables the mother to follow easily and accurately her physician's instructions—it will not clog the nipple. With Casec the percentage of protein can be governed by the physician at will.

Samples of DEXTRI-MALTOSE and CASEC, together with literature describing their use will be sent to any physician on request.

THE MEAD JOHNSON POLICY

Mead's Infant Diet Materials are advertised only to physicians. No feeding directions accompany trade packages. Information in regard to feeding is supplied to the mother by written instructions from her doctor, who changes the feedings from time to time to meet the nutritional requirements of the growing infant. Literature furnished only to physicians.

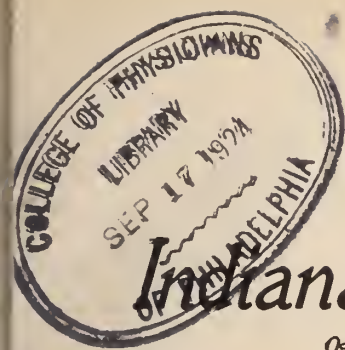
MEAD JOHNSON & CO., EVANSVILLE, INDIANA, U. S. A.

163 DUFFERIN STREET
TORONTO, ONT.



40 & 42 LEXINGTON STREET
LONDON, W 1

MAKERS OF INFANT DIET MATERIALS



INDIANAPOLIS NUMBER

THE JOURNAL

OF THE

Indiana State Medical Association

Owned, Published and Controlled by the Indiana State Medical Association

ISSUED MONTHLY under the Direction of the Council

VOLUME XVII
Number 9

FORT WAYNE, INDIANA, SEPTEMBER 15, 1924

Per Year, \$3.00
Single Copy, 30 Cents

CONTENTS

	PAGE		PAGE
ORIGINAL ARTICLES			
The Treatment of Neoplastic Diseases by Combined Methods. William L. Clark, Philadelphia.....	271	Scientific Program.....	301
The Closure of Chronic Empyema Cavities by Chemical Treat- ment. W. D. Gatch, Indianapolis.....	273	Report of the Secretary-Treasurer.....	302
The Value of Basal Metabolism in Clinical Medicine. Charles L. Seitz, Evansville.....	276	Report of the Committee on Administration and Medical De- fense, including Report of the Treasurer.....	302
The Therapeutic Use of Digitalis. Statement of Council on Pharmacy and Chemistry of the American Medical Asso- ciation.....	281	Report of Committee on Public Policy and Legislation.....	302
The Medical Profession and the Indiana Workmen's Compensa- tion Law. John S. Taylor, Sullivan.....	283	Report of Committee on Automobile Insurance.....	303
THE INDIANAPOLIS SESSION		Report of Committee on Necrology.....	303
The City of Indianapolis.....	294	Report of Committee on Civic and Industrial Relations.....	304
Announcements.....	298	Report of Delegates to American Medical Association.....	305
Condensed Program.....	299	Report of the Bureau of Publicity.....	306
Official Program.....	300	EDITORIALS	
		Our President.....	309
		Health Promotion Propaganda.....	309
		The Volstead Law as Applied to Physicians.....	311
		Protection from Smallpox.....	311
		A Means of Securing Cheaper Life Insurance.....	312
		Require Equally High Qualifications of All Who Practice Medicine.....	313
		The Abrams Fraud.....	313

Next Annual Session, Indianapolis, Sept. 24, 25, 26, 1924. List of Officers and Committees on Adv. Page viii.
Entered as Second Class Matter, January 20, 1908, at the Postoffice at Fort Wayne, Indiana, under Act of
Congress of March 3, 1879. Accepted for mailing at special rate of postage provided for in
Section 1103, Act of October 3, 1917, authorized October 18, 1918.

General Medication in Tuberculosis

"CALCIUM—Certain it is, that patients, especially children, often improve with increased amounts of calcium in their food or as a medicament."

"CREOSOTE—It seems to be true that many patients have improved appetite under its stimulant or irritant action in the stomach. It may also for a time improve digestion, and the patient often adds weight. During this period there is frequently a lessening of the bronchitis, and, therefore a decreased expectoration, and with this decrease of the secondary (streptococcic) infection, there is likely to be less fever and, therefore, less sweating." A. M. A.: *Handbook of Therapy*, Ed. 6, p. 201.

CALCREOSE (calcium creosotate) is a mixture containing in a loose chemical combination approximately equal weights of creosote and lime. It has the pharmacologic activity of creosote but apparently does not have any untoward effect on the stomach.

Samples of Tablets on Request.

THE MALTBIE CHEMICAL CO.
NEWARK., NEW JERSEY

CALCREOSE

MEAD'S

Preventing Nutritional Disturbances In Infants

By far the largest majority of children that are brought to hospitals suffering from severe nutritional disturbances are victims of serious errors made by parents who failed to consult their physicians, and who attempted to feed their babies without a doctor's advice.

If all babies were under a competent physician's care, infant mortality would be surprisingly reduced.

MEAD JOHNSON AND COMPANY realize that the *physician is the only one capable of feeding babies successfully*. MEAD'S INFANT DIET MATERIALS, therefore, have no directions on the package; the mother gets her feeding instructions *only* from her doctor and follows his advice throughout the feeding period.

MEAD'S DEXTRI-MALTOSE, Fresh Cow's Milk and Water, will give gratifying results in feeding a large majority of bottle babies.

MEAD'S CASEC and MEAD'S POWDERED PROTEIN MILK are splendid for fermentative diarrhoeas.

Samples and literature sent at the physician's request

THE MEAD JOHNSON POLICY—Mead's Infant Diet Materials are advertised only to physicians. No feeding directions accompany trade packages. Information in regard to feeding is supplied to the mother by written instructions from her doctor, who changes the feedings from time to time to meet the nutritional requirements of the growing infant. Literature furnished only to physicians.

MEAD JOHNSON & COMPANY

Evansville, Indiana, U. S. A.



Makers of Infant Diet Materials Exclusively

THE JOURNAL

OF THE

Indiana State Medical Association

Owned, Published and Controlled by the Indiana State Medical Association

ISSUED MONTHLY under the Direction of the Council

VOLUME XVII
Number 10

FORT WAYNE, INDIANA, OCTOBER 15, 1924

Per Year, \$3.00
Single Copy, 30 Cents

CONTENTS

	PAGE		PAGE
ORIGINAL ARTICLES		SOCIETY PROCEEDINGS	
The Influence of Ignorance and Neglect on the Incidence and Mortality of Cancer. William J. Mayo, Rochester, Minn.	331	Indiana State Medical Association—Indianapolis Session; House of Delegates	359
Nervous Disorders and Public Welfare. Hugh T. Patrick, Chicago	334	Council Meetings	361
Adenomatosis of the Thyroid. J. W. Snyder, Indianapolis	337	Scientific Meetings	362
Some Remarks on Contagious Diseases. Charles S. Bosbury, South Bend	340	Thirteenth District Medical Society	358
EDITORIALS		CORRESPONDENCE	
The Indianapolis Session	345	Red Cross Nursing Service	363
A New Type of Hospital	346	Diverting Funds of the State Medical Board	363
Editorial Notes	347		

Next Annual Session, Marion, Sept. 23, 24 and 25, 1925. List of Officers and Committees on Adv. Page viii.
Entered as Second Class Matter, January 20, 1908, at the Postoffice at Fort Wayne, Indiana, under Act of Congress of March 3, 1879. Accepted for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized October 18, 1918.

POWDER

TABLETS

SOLUTION

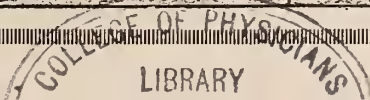
How to Give Creosote

IN bronchitis, especially the bronchitis accompanying pulmonary tuberculosis, and in other conditions in which it is desired to administer creosote, the irritant action of creosote in the stomach may be avoided by administering **CALCREOSE** (calcium creosotate), a mixture containing in loose chemical combination approximately equal weights of creosote and lime. It differs from creosote in that it apparently does not have any untoward effect on the stomach.

Samples of Tablets on Request.

THE MALTBY CHEMICAL CO.
NEWARK., NEW JERSEY

CALCREOSE



FOR BABY'S DIET

A PRESCRIPTION

HENRY V. 410 Jefferson
MILWAUKEE, WIS.

Name Arthur Hamilton Age 6 mo Weight 14-2

Sept 5

Boiler

OF BABY'S FOOD TAKE

Dextri-Maltose No. 24 fluid ounces
Malt Soup 24 fluid ounces
Florena 24 fluid ounces
Barley Water 24 fluid ounces
Casec 24 fluid ounces

Divide the above mixture evenly into 5 bottles
and feed the contents of one bottle at the following
checked ☒ HOURS TO FEED 4, 6, 30, 3 P. M., 2 A. M.

A written prescription is definite and cannot be forgotten.
It also carries with it the authority of the doctor himself.

It is individual—and its individuality shows that *thought* has been given to the baby's individual requirements—the mother is much more interested in her physician's judgment and much less apt to take cognizance of outside interference.

A prescription of
FRESH COW'S MILK, MEAD'S DEXTRI-MALTOSE AND WATER not only gives gratifying results for the average baby but also establishes confidence between the mother and the doctor.

MEAD'S DEXTRI-MALTOSE *can only be prescribed by the physician*—there are no directions on the package.

When **DEXTRI-MALTOSE** is used as the added carbohydrate of the baby's food the physician himself *controls* the feeding problem.

MEAD'S P & C COD LIVER OIL

A dependable cod liver oil of known origin. Exceptionally high in antirachitic, antiophthalmic and growth values. Mild in taste and well tolerated.



MEAD'S CASEC

For preparing a milk modification high in protein and correspondingly low in carbohydrate. For use in Fermentative Diarrhoeas and Marasmus.

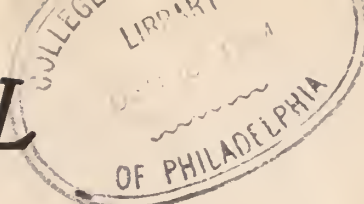
MEAD JOHNSON AND COMPANY
EVANSVILLE, INDIANA, U. S. A.

NOTE: We will be glad to print, with the physician's name and address, a set of prescription blanks for use in his infant feeding cases.

MEAD JOHNSON & CO., Evansville, Ind.
Please send me "No Charge"

- ☐ A Set of Prescription Blanks
- ☐ Samples and Literature, Mead's P & C Cod Liver Oil
- ☐ Samples and Literature, Mead's Dextri-Maltose.
- ☐ Samples and Literature, Mead's Casec

____ M. D.
____ ST.
CITY _____ STATE _____



THE JOURNAL

OF THE

Indiana State Medical Association

Owned, Published and Controlled by the Indiana State Medical Association

ISSUED MONTHLY under the Direction of the Council

VOLUME XVII
Number 11

FORT WAYNE, INDIANA, NOVEMBER 15, 1924

Per Year, \$3.00
Single Copy, 30 Cents

CONTENTS

	PAGE		PAGE
ORIGINAL ARTICLES		EDITORIALS	
Concerning the Past, Present and Future of Medical Economics, Samuel E. Earp, Indianapolis	367	Cleft Palate Surgery	386
Trachoma at Its Worst Among the Blackfeet Indians. L. Webster Fox, Philadelphia	370	Focal Sepsis	386
Urologic Diagnosis for the General Practitioner. Bransford Lewis, St. Louis	374	Unrest in College of Surgeons	387
Acute Poliomyelitis Treated With Rosenow's Serum. C. C. DuBois, Warsaw	381	Editorial Notes	388
Compensation for Medical Services. John Lovett Morse, Boston	382	MISCELLANEOUS	
SPECIAL ARTICLE		Deaths	395
The Riley Hospital for Children	383	News Notes and Personals	396
		Abstracts	397
		Truth About Medicines	400

Next Annual Session, Marion, Sept. 23, 24 and 25, 1925. List of Officers and Committees on Adv. Page viii.
Entered as Second Class Matter, January 20, 1908, at the Postoffice at Fort Wayne, Indiana, under Act of Congress of March 3, 1879. Accepted for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized October 18, 1918.

POWDER

TABLETS

SOLUTION

How to Give Creosote

IN bronchitis, especially the bronchitis accompanying pulmonary tuberculosis, and in other conditions in which it is desired to administer creosote, the irritant action of creosote in the stomach may be avoided by administering **CALCREOSE** (calcium creosotate), a mixture containing in loose chemical combination approximately equal weights of creosote and lime. It differs from creosote in that it apparently does not have any untoward effect on the stomach.

Samples of Tablets on Request.

THE MALTBY CHEMICAL CO.
NEWARK, NEW JERSEY

CALCREOSE

THE CHIEF REASON

FOR THE PHYSICIAN'S FEEDING THE BABY
IS TO INSURE NORMAL HEALTHY GROWTH

COW'S MILK MODIFICATIONS seem at present to be the safest and most adaptable food for the artificially fed infant.

Diluted cow's milk, with an added carbohydrate, meets the nutritional demands of a great majority of babies.

DEXTRI-MALTOSE, in addition to being the most easily assimilated form of carbohydrate, is marketed to the laity without directions.

The only manner in which instructions reach the mother is through her doctor. The Physician, then, **CONTROLS** his infant feeding cases.

TO BE ON THE SAFE SIDE

As a prophylactic against Scurvy, Physicians prescribe orange juice.

To insure against Rickets, an extremely potent Cod Liver Oil is invaluable.

MEAD'S CERTIFIED COD LIVER OIL

A dependable Cod Liver Oil of known potency, biologically tested for its antirachitic value.

MEAD'S CERTIFIED COD LIVER OIL is of such potency that sufficient quantities, both to cure and prevent rickets, can be added directly to the Feeding Formula without upsetting the fat proportions of the diet or causing indigestion in the baby.

(*Literature and liberal samples of MEAD'S CERTIFIED
COD LIVER OIL sent at the Physician's request.*)



MEAD JOHNSON AND COMPANY
EVANSVILLE, INDIANA, U. S. A.

THE JOURNAL OF THE Indiana State Medical Association

Owned, Published and Controlled by the Indiana State Medical Association

ISSUED MONTHLY under the Direction of the Council

VOLUME XVII
Number 12

FORT WAYNE, INDIANA, DECEMBER 15, 1924

Per Year, \$3.00
Single Copy, 30 Cents

CONTENTS

	PAGE		PAGE
ORIGINAL ARTICLES		MISCELLANEOUS	
A Present Understanding of Tuberculosis. Edward Jackson, Denver	403	Deaths	434
Treatment of Uveal Diseases. William L. Benedict, Rochester, Minnesota	408	News Notes and Personals	435
Fractures. Kellogg Speed, Chicago	414	Abstracts	437
Mesenteric Cysts. Robert A. Milliken, Indianapolis	417	Truth About Medicines	438
SPECIAL ARTICLES		SOCIETIES AND INSTITUTIONS	
Your Chicago Home	418	Indiana State Medical Association	436
Tell It to Tom	420	Decatur County Medical Society	436
EDITORIALS		BOOK REVIEWS	
Rheumatism	421	Anatomy of the Human Body (Gray)	Adv. p. xx
Simple Glaucoma	421	Diseases of the Eye (de Schweinitz)	Adv. p. xx
Harrison Anti-Narcotic Law	422	Life Insurance Examinations (Foxworthy)	Adv. p. xx
Christian Science and Smallpox	423	Abt's Pediatrics (Abt)	Adv. p. xx
The New Executive Secretary	424	DIRECTORIES	
Editorial Notes	425	Indiana State Medical Association: Officers for 1925, Section	
		Officers; Delegates to A. M. A.; Councilors	Adv. p. viii
		County Medical Society Directory	Adv. p. vi
		Physicians' Directory	Adv. p. xxv

Next Annual Session, Marion, Sept. 23, 24 and 25, 1925. List of Officers and Committees on Adv. Page viii.
Entered as Second Class Matter, January 20, 1908, at the Postoffice at Fort Wayne, Indiana, under Act of Congress of March 3, 1879. Accepted for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized October 18, 1918.

CALCIUM AND TUBERCULOSIS

CALCIUM starvation has been suggested by phthysiologists as a factor in the etiology by pulmonary tuberculosis. By prescribing **CALCREOSE** some of the needed calcium may be supplied.

CALCREOSE (calcium creosotate) is a mixture containing in loose chemical combination approximately equal weights of creosote and lime. It has the pharmacologic activity of creosote as used in the adjuvant treatment of tuberculosis, but differs from creosote in that it apparently does not have any untoward effect on the stomach.

POWDER—TABLETS—SOLUTION

THE MALTBY CHEMICAL CO.
NEWARK, NEW JERSEY

CALCREOSE

INFANT DIET



MATERIALS

A STANDARDIZED COD LIVER OIL FOR THE CONTROL OF RICKETS

RECENT PEDIATRIC LITERATURE has demonstrated conclusively the value of Cod Liver Oil in the prevention and cure of rickets.

BUT SMALL AND UNIFORM DOSES can only be given when an oil of uniform high potency is available.

THE HIGH POTENCY OF MEAD'S CERTIFIED COD LIVER OIL is assured by careful supervision of every step in its preparation, and by making sure that only fresh cod livers are used from fish in the best physiological condition.

THE UNIFORMITY OF POTENCY is assured by biological tests of each batch of MEAD'S CERTIFIED COD LIVER OIL before marketing.

THE RESULT IS A STANDARDIZED ANTIRACHITIC AGENT which not only is unusually well tolerated by infants, but can also be given efficiently in such small doses as not to upset the fat proportion in the baby's diet.

Samples and literature sent at physician's request.

MEAD JOHNSON & COMPANY

Makers of Infant Diet Materials

EVANSVILLE, IND., U. S. A.



MEAD'S DEXTRI-MALTOSE

LIBRARY OF THE
COLLEGE OF PHYSICIANS
OF PHILADELPHIA

This Book is due on the last date stamped below. No further preliminary notice will be sent. Requests for renewals must be made on or before the date of expiration.

DUE	RETURNED
NOV 6 - 1948	NOV 2 1948

A fine of twenty-five cents will be charged for each week or fraction of a week the book is retained without the Library's authorization.

